

AUGUST 4, 1958

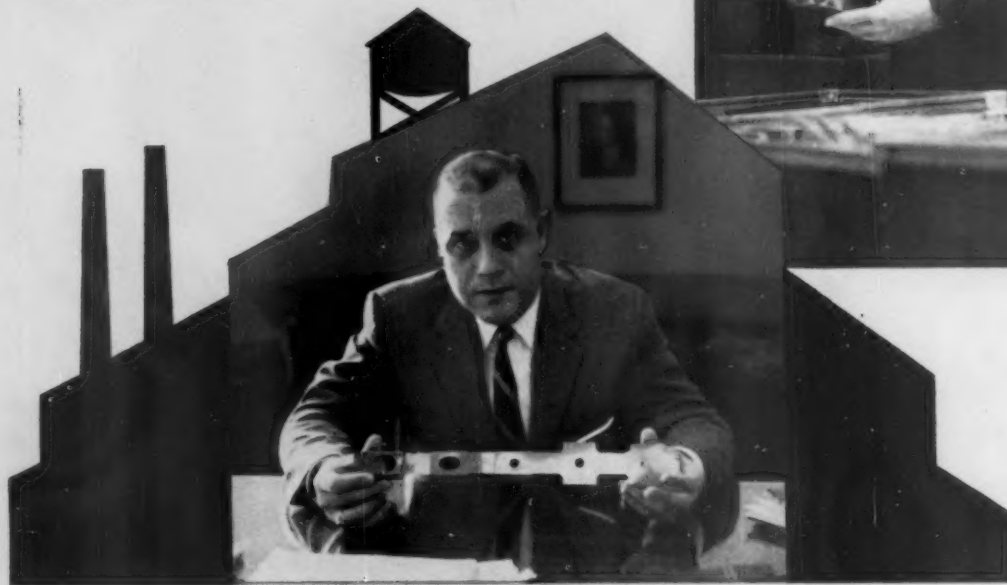
# PURCHASING

The Methods and News Magazine for Industrial Buyers

## Planned Purchasing Brings Bigger Profits

...in the small company, Purchasing Agent Bob Swander of the Heath Company actually is a materials manager with wide responsibilities. See page 61.

...in the larger company, Director of Purchases Frank Traversi hammers out a new dynamic role for purchasing at Gillette Safety Razor Co. See page 57.



## Shoe soup for a Mayan dandy



When a Mayan needed shoes, he simply went to the nearest rubber tree . . . and poured himself a pair. By dipping his feet repeatedly into a bath of raw latex, he fashioned a kind of shoe. The style was crude, but the fit was perfect.

Rubber goods have come a long way since then, and the development of synthetic rubber has been an important factor in this growth—especially since 1941 when Shell Chemical

built the country's first commercial butadiene plant. Today over twenty different types of Shell synthetic rubber go into such varied products as shoe soles and heels, tires, belting, floor tile, wire and cable insulation, and hundreds more.

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*The Mayan and other Indians of Latin America discovered a unique material for making clothing and footwear.*

## Shell Chemical Corporation

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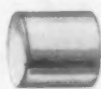


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**B.F. Goodrich**



## **Bang, rattle, shake— pipes were cracking up**

### *B. F. Goodrich improvements in rubber brought extra savings*

**Problem:** That powerful pump at left draws hot acid at 400 gallons a minute from tanks, then shoots it through big pipes. The pump vibration shook the pipes until they clanged, rattled and shivered, gradually cracked, leaked, lost corrosive acid that damaged equipment. Pipes had to be replaced two or three times a year.

**What was done:** The plant superintendent, working with a B. F. Goodrich distributor, decided to replace a short

length of lead pipe between the tank and pump with a B. F. Goodrich Flex-seal Connector. This is a special kind of hose, made of thick, resilient rubber, which is designed to absorb the pump vibrations traveling along pipelines.

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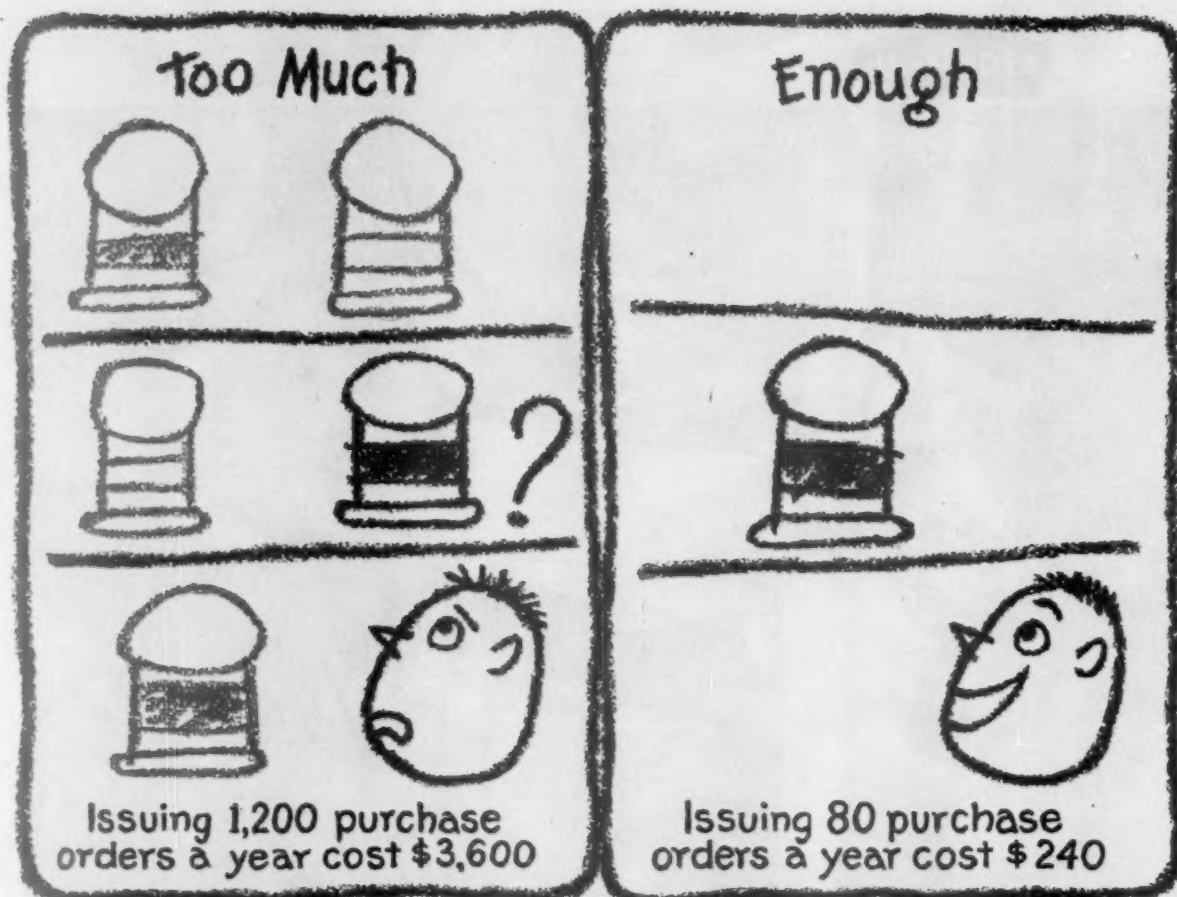
will be made because the sturdy, acid-resisting hose is expected to last another two years. A coil of round steel wire, buried in the hose, keeps it from collapsing even under powerful suction.

**Where to buy:** Your B. F. Goodrich distributor has exact specifications for the B. F. Goodrich hose described here. And, as a factory-trained specialist in rubber products, he can answer your questions about all the rubber products B. F. Goodrich makes for industry. B. F. Goodrich Industrial Products Company, Dept. M-396, Akron 18, Ohio.

# **B.F. Goodrich industrial products**

AUGUST 4, 1958

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Overstocking of lubricant types is a common problem in industry — results in a too-abundant inventory.

In many cases, surveys can narrow inventory down to several basic types which perform the bulk of lubrication.

## Lubricant survey cuts cost of purchasing—in this case, 93%

Inherent waste and duplication is common when lubricants are overstocked. But this is only part of the loss you suffer. A too-abundant inventory can also result in very steep costs in your Purchasing Department. This example actually happened:

One manufacturer estimates that it costs him \$3 to initiate a purchase order. Investigation showed that it took some 1,200 such orders a year to maintain his inventory of 100 different lubricants—or \$3,600 in ordering costs. He instituted a survey. As a result the number of different lubricants stocked was dropped to 20. Quarterly pur-

chasing intervals were also recommended. Purchasing cost then sank to a mere \$240 per year—an annual saving of \$3,360.

No wonder industry is feeling a rising need for management planning of lubrication programs. Greasing a machine is a mechanic's job — but cost control isn't. That's why the services of a plant lubrication engineer are paying off in larger plants; and even smaller plants are delegating lubrication responsibility to someone on the management team.

Whichever solution you choose, Texaco's organization of Lubrication

Engineers can offer specific assistance in all 48 States. A more detailed analysis is available in an enlightening booklet: "Management Practices That Control Costs Via Organized Lubrication." Write The Texas Company, Dept. P41, 135 East 42nd Street, New York 17, New York.



**LUBRICATION IS A MAJOR FACTOR IN COST CONTROL**  
(PARTS, INVENTORY, PRODUCTION, DOWNTIME, MAINTENANCE)

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# PURCHASING

The Methods and News Magazine For Industrial Buyers

AUGUST 4, 1958  
VOLUME 45, No. 3

B. P. MAST  
Chairman of the Board

B. P. MAST, JR.  
President

RAY RICHARDS  
Publisher

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the official organ of any association. Established  
1915 as "The Purchasing Agent." Consolidated  
with "The Executive Purchaser."

Contents are indexed monthly and annually by  
the Engineering Index Service and Business  
Periodicals Index.  
PURCHASING is published every-other-Monday  
by C-M Business Publications, Inc., subsidiary  
of Conover-Mast Publications, Inc., at Orange,  
Conn. Editorial and executive offices, 205 East  
42nd Street, New York 17, New York. Volume  
45, No. 3. Subscription rates: United States,  
U. S. Possessions and Canada: \$4.00 per year;  
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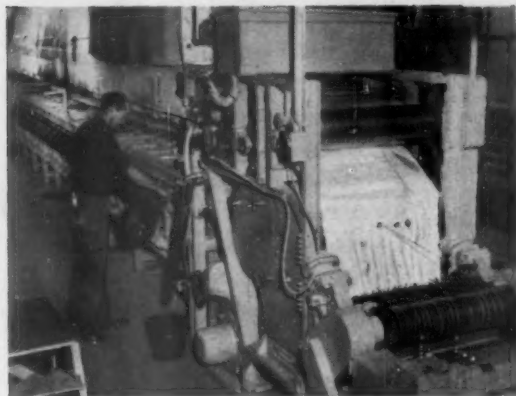
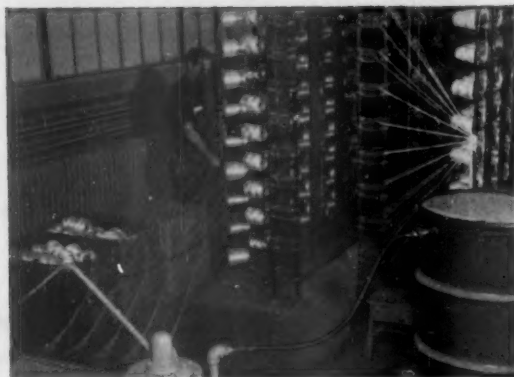
**DIMENSIONALLY STABLE V-BELTS with the GREEN SEAL by**

# GOOD YEAR

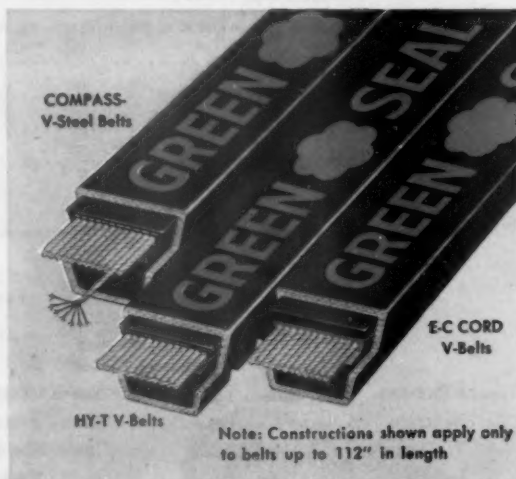
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### Straws in the Trade Wind

► **THE MIDEAST AND PURCHASING**—By and large, P.A.'s aren't rushing to build up inventories in the wake of the Mideast crisis. Of course, there are some exceptions—like steel and textiles—but even the movements in these commodities are governed in part by other factors. Most purchasing executives, are not changing their buying plans—largely because of the excess production capacity of most of their suppliers.

► **NEW BONDING METHOD**—Scientists have developed a new surface treatment for joining fluorinated resins with metals, rubber, and plastics. The new process, using a sodium-naphthalene complex, requires only conventional ventilation and uses treating solutions that can be stored for long periods.

► **CUTTING FREIGHT COSTS**—Purchasing agents will save at least two ways by repeal of the 3% freight tax last Friday. First, the price of many raw materials and components may drop—especially those that have to be shipped several times prior to the purchase. And many P.A.'s will be able to negotiate more advantageous contracts with vendors who ship F.O.B. destination.

#### For the P.A.'s Hot File . . .

Latest industrial developments indicate that ceramics—considered to be extremely brittle and incapable of being worked after initial formation—can be made malleable and shaped more easily into useful items. Shaping has already been accomplished with some ceramics along one crystal plane, and experiments thus far with malleable polycrystalline ceramics are quite encouraging.

► **EARNING MORE MONEY**—The typical middle management business executive—including some in purchasing—earns \$11,800, says the American Management Association. His salary rose 4.8% from 1957. But that industrial salesman sitting across the desk from you, whose salary is generally higher than that of the average consumer salesman, increased his pay only 3.2% in 1958.



Detroit's autoworkers are still working without a contract as new model time approaches. The results of the negotiations between the UAW and the Big Three will have an effect not only on purchasing agents buying new fleets, but also on most other P.A.'s because of the importance of the automobile industry in the economy.

# NB FACTS

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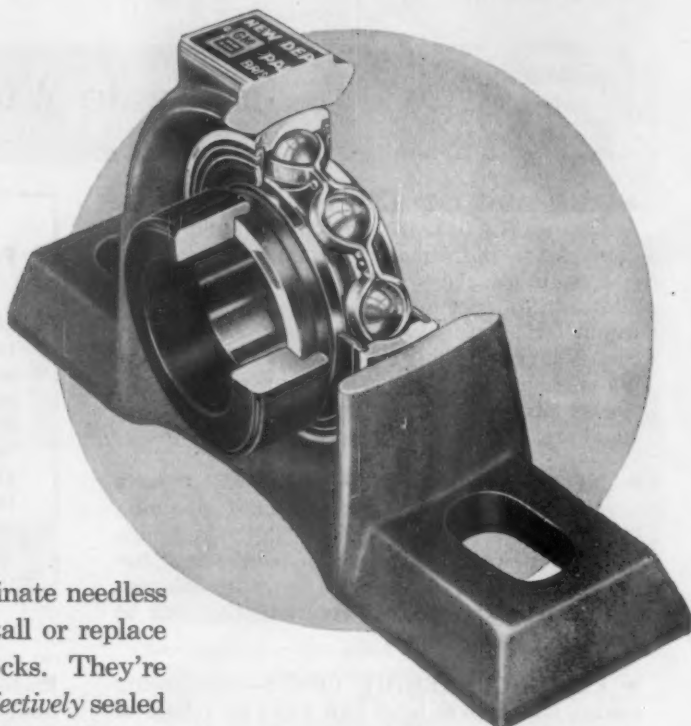
For complete information write for brochure PBB.

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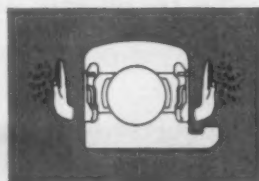


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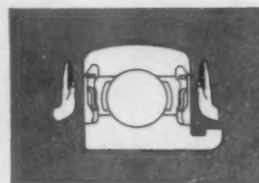
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### Straws in the Trade Wind

► **THE GOOD FIGHT**—More than 100 presidents of top corporations were queried by Dun & Bradstreet about ways to fight a recession. Their answers, which point up the importance of the purchasing agent during these periods, include: elimination of waste, close control of costs, and preparing a good forward program with long-range goals at least five years ahead.

► **HIGHER WHEELS**—Look for a price hike on the replacement tires that you're buying for your company's auto fleets. A rise of about 3% was made by tire companies as a result of last month's wage hike of slightly over 3%.

► **COST OF R&D**—Ever wonder how much is being spent for research and development of new products and ideas? In 1953, we spent \$5.4 billion. Three years later, the figure rose to \$9 billion. Of that amount, about \$3.3 billion came from private industry, another \$3.1 billion was spent by industry but financed by Uncle Sam, and around \$2.5 billion was accounted for by government, educational, and nonprofit institutions.

► **MAIL ORDER PRICES DOWN**—You can get a good advance indication of upcoming prices by scanning the catalogs issued by the big mail order houses. Fall and winter catalogs sent out by the four largest companies—Sears, Roebuck, Montgomery Ward, Spiegel's and Alden's—all show lower prices. The Sears book shows its goods around 1.5% lower than last spring, while Ward's says its price tags average

2.5% less than a year ago.

► **CONSUMER CONFIDENCE RISING**—The man in the street has regained the confidence in the economy he had last December and partially lost in the next few months, according to the University of Michigan Survey Research Center. Adults questioned in June indicated a greater willingness to buy than had been shown in recent months.

► **TITANIUM ALLOY**—A new titanium alloy for use in advanced aircraft, guided missiles, and space craft has been developed. The alloy is capable of being readily formed in "soft" condition and then strengthened by simple thermal aging treatments. Some P.A.'s for airframe and missile manufacturers are already evaluating the new material.

► **RECENT PRICE CUTS**—Among the price cuts announced in recent weeks are these: ammonium nitrate by a number of major chemical companies; trimethylolphenol by Bakelite Company; and silicon controlled rectifiers by General Electric.

► **RETAIL PRICES UP AGAIN**—After a leveling off period in May, retail prices moved upward again in June, according to the National Industrial Conference Board. Its index stood at 107.5 (1953=100), 2.9% above June 1957. In addition, it says purchasing power of the consumer dollar dropped to 93 cents (1953=\$1).



Joseph L. Block

### QUOTE!

In a plea to workers to moderate their wage demands, Joseph L. Block, president of Inland Steel Company, has presented a few facts of economic life. Writing in the company magazine, he notes that industrial productivity has risen an average of 2.5% annually from 1947 through 1957, while employment costs for industry have gone up around 5.5% each year in the same period. "Wages and salaries in 1947 were 62.3% of the national income and in 1957 they rose to 66.7%," he says. In the same period, he adds, corporate profits after taxes dropped from 9.3% of the national income in 1947 to 5.6% last year. Mr. Block asserts that corporations must make an adequate profit, or else "the jobs of their present and future employees would be in peril."



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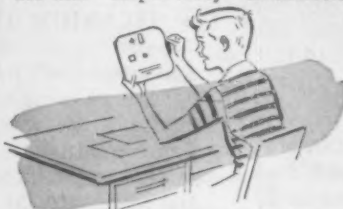
\* **New Riegel facilities** permit solvent or aqueous coatings on heavy paper up to 25 pts...for heat-sealing, quick release, resistance to grease, abrasion, moisture, etc. Want facts?

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\* **Kids are fascinated** by these spin-the-dial "Rapid-Easy" arithmetic



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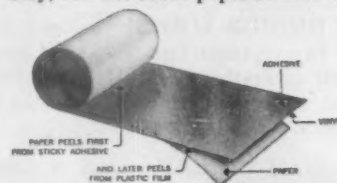
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- \* Two-faced paper speeds Plastic production
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\* **Wheat Honeys** have a delicious honey coating. But honey's high affinity for moisture could quickly spoil the delightful crispness. Nabisco solved this problem with a



sure-fire moisture barrier...a laminated liner of foil and special Riegel glassine.

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## Riegel

TECHNICAL PAPERS FOR INDUSTRY

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# PURCHASING: A Big Job Gets Even Bigger

*Very few P.A.'s merely purchase. Their duties have been expanded to take in many more functions related to materials management. And additional functions will be added in the future to make the purchasing agent's job tougher and more important to his company.*

"PURCHASING" will eventually evolve into a much broader "materials management" activity, just as "sales management" has already evolved into "marketing management."

This prediction was made in the Harbridge House report announced at the annual convention of the National Association of Purchasing Agents. It's substantiated in this month's Purchasing Opinion Survey (See page 15). Nearly three-fourths of the respondents see the beginning of a trend toward materials management. And 92 percent feel that such a trend is desirable and would boost operating efficiency in their industry.

## Big Job Gets Bigger

Practically all respondents (98 percent) agreed that purchasing's "sphere of influence" has grown significantly in the last ten years. And this condition seems to be borne out by the facts. About 77 percent of the respondents report directly to top management. (Remember the days when purchasing was a little sub-section buried deeply in the manufacturing departments hierarchy?)

Purchasing's broad role in ma-

terials management is conclusively proved by Table I. Note how frequently purchasing directors also control related activities like inventory control, material control, traffic, and receiving and shipping. And anyone who still thinks purchasing is a rubber stamp for manufacturing or engineering should take a close look at these statistics:

● Over two-thirds of the respondents make the "final de-

cision" on the purchase of productive parts and materials and practically all of the remaining one-third "influence" the decision.

● Even in its weakest areas—office equipment and other capital equipment—purchasing is a lot stronger than many people think. While only 10 percent of the respondents make the final decision on capital equipment purchases, a whopping 81 percent influence such purchases. The figures for office equipment are even more impressive—42 percent make the final decision and another 52 percent influence the decision.

● Purchasing plays a remarkably strong role in areas traditionally associated with engineering—specifications, standards, and materials substitutions. It strongly influences decisions on specifications and standards in 81 percent of the cases and makes the final decision in 9 percent. Its role in materials substitution is comparable, the figures in this case being 82 percent and 13 percent.



"The one in the middle is our president. I guess he neglected to make an appointment."

## Management Understands

For years now purchasing's big beef has been "top management just doesn't understand




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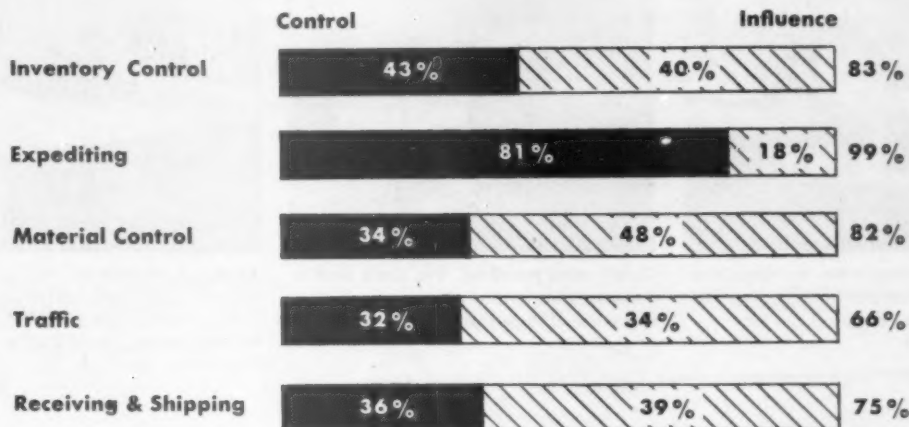
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# AMERICAN WELDING

Table I

### Purchasing's Responsibilities Grow

Activities, besides purchasing, influenced or controlled by the top purchasing executives.



the purchasing function." This is still true to some extent. But about two-thirds of the respondents reported that they believe top management really can "understand and objectively evaluate its purchasing function."

The trend of answers here is particularly encouraging. Around 79 percent of the respondents feel that the management in their own company understands purchasing; only 62 percent feel that purchasing is understood in industry generally. In other words, P. A.'s are most optimistic about the jobs, they know best—their own. Their opinions on industry in general are apt to lag a little behind the changes that have taken place in recent years.

Despite recession cutbacks, most P. A.'s feel they have enough personnel. Apparently more managements not only feel purchasing can make money for them, but are also willing to back

their opinions with hard cash to pay buyers' and value analysts' salaries.

But there is still plenty of room for improvement. One big weak spot is value analysis; nearly two-thirds of the respondents are under-staffed in this key area. Also, about 30 percent of the respondents think they do not have adequate personnel to thoroughly investigate new purchasing procedures. And 12 percent don't even have sufficient personnel to maintain adequate records.

#### The Future Is Bright

The future is bright for purchasing personnel willing and able to take on additional responsibilities. Respondents almost unanimously agree that purchasing, material control, and inventory control should be integrated into a single materials department. Most include traffic and receiving. In fact,

around one-fourth also include production control and shipping.

The integrated materials department may arrive in many companies a lot sooner than most business executives think. The change will be brought about by automation—both in the office and the factory. The new office computers will require that paperwork be treated as a flow process. Materials management will have to be treated as an integrated concept when procedures are designed to fit the computers; the human organization will eventually adapt itself to this realignment of paperwork.

Automation in the factory will increase the pressure for a unified approach to materials management. Cost of material shortages will advance to fantastic heights. Management will eventually be forced to try unified materials management to eliminate divided responsibility with its inevitable buckpassing. This will be purchasing's big chance.



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**Quick, easy handling.** You don't need a truck to pick up the wire you need. Just throw one of these cartons in the front seat of your car.



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Don't lug a full reel onto the job when all you need is a short length to finish up the installation. Just ask your Rome distributor for the size you need in one of Rome's easy-to-handle cartons.

Type	Size	No. of Strands	Conductor	Covering	Length	Package	Packaging	Approx. Wgt. Lbs.
Bare	14	Solid	Copper	None	1000'	Spool	1 per carton	13
Bare	12	Solid	Copper	None	1000'	Spool	1 per carton	20
Bare	10	Solid	Copper	None	500'	Spool	1 per carton	16
Bare	8	Solid	Copper	None	500'	Spool	4 per carton	105
Bare	8	7	Copper	None	500'	Spool	4 per carton	105
Bare	6	Solid	Copper	None	300'	Spool	4 per carton	105
Bare	6	7	Copper	None	300'	Spool	4 per carton	105
Bare	4	Solid	Copper	None	200'	Spool	4 per carton	105
Bare	4	7	Copper	None	200'	Spool	4 per carton	105
Bare	2	7	Copper	None	250'	Coil	1 per carton	51
Weatherproof	14	Solid	Copper	Roprene	500'	Coil	1 per carton	10
Weatherproof	12	Solid	Copper	Roprene	500'	Coil	1 per carton	14
Weatherproof	10	Solid	Copper	Roprene	500'	Coil	1 per carton	20
Weatherproof	8	Solid	Copper	Roprene	500'	Coil	1 per carton	34
Weatherproof	6	Solid	Copper	Roprene	500'	Coil	1 per carton	51
Weatherproof	14	Solid	Copper	TK	500'	Coil	1 per carton	13
Weatherproof	12	Solid	Copper	TK	500'	Coil	1 per carton	17
Weatherproof	10	Solid	Copper	TK	500'	Coil	1 per carton	27
Weatherproof	8	Solid	Copper	TK	500'	Coil	1 per carton	36
Weatherproof	6	Solid	Copper	TK	500'	Coil	1 per carton	54
Triplex SS	6	Solid	Aluminum and ACSR	Roprene or Rolene	500'	Coil	1 per carton	80
Triplex SS	6	7	"	"	500'	Coil	1 per carton	80
Triplex SS	4	Solid	"	"	500'	Coil	1 per carton	110
Triplex SS	4	7	"	"	500'	Coil	1 per carton	110
Duplex SS	6	7	"	"	500'	Coil	1 per carton	50
Duplex SS	4	7	"	"	500'	Coil	1 per carton	75

• Save this ad and use it as a handy buying guide for Rome wire and cable in short lengths.

# ROME CABLE

C O R P O R A T I O N

For More Information Write No. 162 on Inquiry Card—Page 32



# PURCHASING OPINION

## Will Today's P. A. Become Tomorrow's Materials Manager?

At the recent convention of the National Association of Purchasing Agents, it was predicted that today's purchasing department may well evolve into a materials department responsible for all phases of materials management—purchasing, inventory control, traffic, receiving, shipping, etc. To find out if there is already a trend toward this concept of management, we surveyed a representative group of purchasing executives. Their combined answers follow.

1. Have you as yet observed any trend toward a materials management concept of organization embracing all related materials activities?

Yes



72%

No



28%

2. Do you believe that such an integrated approach to materials management would boost efficiency and profits in your own industry?

Yes



92%

No



8%

3. What functions do you feel should be brought together into an integrated materials department?

Purchasing



100%

Inventory Control



94%

Material Control



91%

Receiving



74%

Traffic



69%

Production Control



26%

Shipping



24%



#### GENERAL CHAINS

Cast chains including detachable, pinle, case conveyor, mill, transfer, log-haul, combination-Durobar, cast roller, ley bushed, and drag. Steel chains including detachable, Chabela, drop forged, block and bar, long-pitch leaf, and TableTop.



#### ROLLER CHAINS

Complete line of roller chains, including ASA single and multiple strand, ASA double pitch, agricultural, replacement, and PlateTop; block and leaf chains; STOCK and special types.



#### CAST SPROCKETS

Including STOCK and order sizes, arm-body and plate-body, solid and split, flanged rim and drum flanged, traction wheels and idlers. Made of gray cast iron, Temperm or cast steel.



#### CUT SPROCKETS

Including single and multiple strand, with and without hubs, in STOCK sizes of Shaft-Ready, Taper-Lock, and stock-bore types for roller chain; also made-to-order sizes. Made of steel or semi-steel, depending on type.



#### BEARINGS AND TAKE-UPS

Including the Shafer Self-Aligning Roller Bearing line of pillow blocks, flange units, cartridge units, flange-cartridge units, duplex units, take-up units, and take-up and frame units. Also babbbitted and bronze-bushed types.



#### TRANSMISSION

Including roller chain flexible couplings, square-jaw and spiral-jaw clutches, solid and split set collars of malleable iron or steel, chain slack adjusters, and lubricating fittings.



#### ELEVATOR BUCKETS

Cast types made of malleable iron or Z-metal, and fabricated types made of welded steel. STOCK and order types. From the smallest to the largest commercial sizes for handling all classes of bulk materials.



#### CONVEYOR PRODUCTS

Complete line of belt conveyor idlers—regular and training, in troughing, flat, and return types; welded steel pulleys; belt conveyor trippers and take-ups; belt cleaners; backstops; steel beaded slats; leakproof aprons and self-contained feeders.



#### ACCESSORY PRODUCTS

Bin gates of undercut type or rack and pin on type—plain and dust-tight Spray nozzles in a complete range of sizes and materials. Chain vises and cases.



## When you're looking for **PLUS** values...

What in addition to a good product do you expect of a supplier?

You should know about CHAIN Belt warehousing. It assures prompt and accurate shipment of standard items from nearby stocks often right in your own community.

You should know about our prompt attention to emergencies and specials—the proudly maintained CHAIN Belt reputation for producing the impossible in product or time.

You should know about the experience and training of our field organization—distributors and field sales engineers. These men can often suggest a better component than you knew existed—for less money.

Write today for CHAIN Belt's new Catalog 610 of standard merchandise for mechanical power transmission and conveying machinery—and consider the extra values which CHAIN Belt offers you toward a sound and mutually profitable business relationship. CHAIN Belt Company, 4670 West Greenfield Avenue, Milwaukee 1, Wisconsin. In Canada, write CHAIN Belt (Canada) Ltd., 1181 Sheppard Ave., East, Toronto, Ontario.

# CHAIN BELT

## Purchasing Opinion

4. To whom does the top purchasing official in your company report?

Top Management 77%

Manufacturing 14%

Finance 9%

5. Do you believe top management really can understand and objectively evaluate its purchasing function today?

Yes, in industry in general 62%

Yes, in own company 79%

6. How does top management in your company measure the performance of its purchasing department?

Budgets and/or Standard Costs 60%

Reports to Management by Purchasing 42%

Analyses of Quality and Delivery Performance 43%

7. Does your department have adequately trained personnel to:

Thoroughly check new suppliers and materials 55%

Develop new purchasing procedures 70%

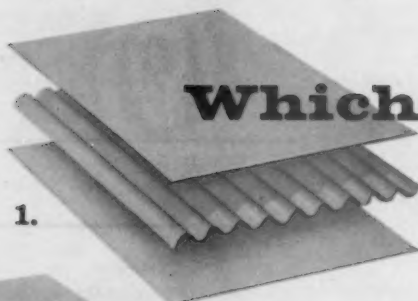
Maintain adequate records 88%

Carry on organized value analysis programs 35%

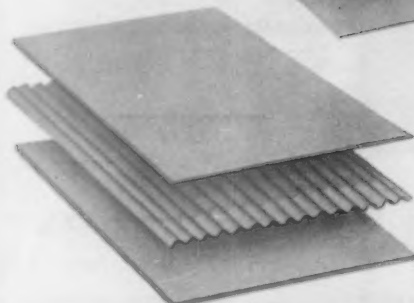
*What you should know about*

## Which combination for

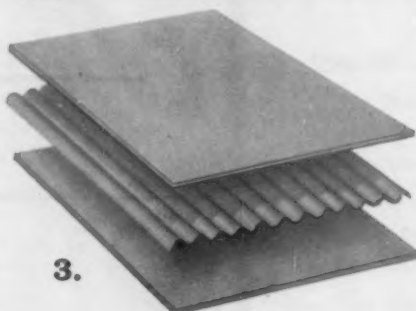
1.



2.



3.



1. "A"-flute board
2. "B"-flute board
3. "C"-flute board

**T**hink of the "sandwich" of corrugated as the built-up layers of board that fold to form your shipping container.

In double-faced board, its most widely used form today, this "sandwich" consists of one sheet of corrugated medium glued between an outer and an inner liner. But there are many combinations depending on the degree of protection required. Different types of flutes ("A", "B" and "C"). Different weights or thicknesses of liners.

Which combination to pick depends primarily on your product. For example, how large is it? How heavy . . . durable? How is it normally shipped?

Union Box structural engineers will be glad to make such a product analysis for you and help plan your shipping container for greatest efficiency and economy.

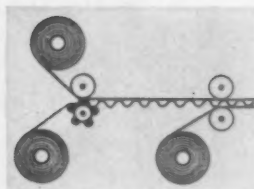
### Combining the board

The combination determined, rolls of corrugating medium and linerboard are placed on the corrugator. Here, steel "teeth" form the flutes, arching each one uniformly. The inner and outer facings are then applied.



combined board for Union Boxes

## your corrugated box "sandwich"?



Board components

KEMKOR is a product of hardwood whose short, tough fibers combine remarkable rigidity with good load-bearing properties.

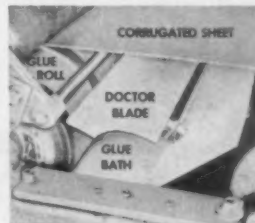
### Making it stick

Adhering the inner and outer facings to the flutes are critical sheetmaking operations. Pressures, for example, must be sufficiently heavy to insure a durable permanent bond. Not so heavy as to crush and weaken the structure.

Then there's the quantity of adhesive used. Not enough results in a defective, prone-to-peel-apart sheet. Too much causes a "washboard" appearance and means that in order to achieve good printing some crushing of the flutes will occur. This crushing, while not always apparent to the eye, does reduce the overall strength of the box.

For extra-durable cushioning, Union's KEMKOR corrugating medium, made by the semichemical process, is normally specified.

Even the amount of heat applied to the board can spell the difference between a strong "sandwich" and an unstable one. Adjusting heat to the gel-characteristics of the adhesive requires a fine balance. Too much heat prevents the glue from penetrating the board's fibers and causes a crystalline layer that breaks easily under stress. Insufficient heat allows the glue to "bite" but doesn't cook it enough to cause gellation and incomplete adhesion results. That's why it's essential that heat be accurately set for glue characteristics and machine speed as well as for the weight of board being run.



Glued for good

These controlled processes are typical of the detail that goes into every operation of Union Box manufacture. They save time and expense during handling, filling and loading. They provide the surest kind of protective insurance for your product and your overall shipping investment.



Write for new, informative booklet, "Manufacturing Sheets for Corrugated Boxes."

# UNION BOXES

UNION BAG-CAMP PAPER Corporation

233 BROADWAY, NEW YORK 7, N. Y.

**Factories:** Savannah, Ga., Trenton, N. J., Chicago, Ill., Lakeland, Fla.

**Sales Offices:** Eastern Division—1400 E. State Street, Trenton, N.J.  
Southern Division—P.O. Box 570, Savannah, Ga.; P.O. Box 454, Lakeland, Fla.  
Western Division—4545 W. Palmer, Chicago, Ill.

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## Your markets are as near as your telephone

Buying by telephone saves you time. You can keep on top of market conditions with quick answers to questions about prices, stocks, schedules and delivery dates.

The telephone is personal, too. It permits the kind of friendly discussions that get problems settled quickly and

smoothly. It builds good will.

Start using the telephone for your out-of-town purchasing problems today. It's low in cost and gets results.



**BELL TELEPHONE SYSTEM**

Call by Number. It's Twice as Fast.

### LONG DISTANCE RATES ARE LOW

#### Daytime Station-to-Station Calls

For example:	First 3 Minutes	Each Added Minute
Pittsburgh to Cleveland	60¢	15¢
Chicago to St. Louis	90¢	25¢
Seattle to San Francisco	\$1.40	40¢
New Orleans to New York	\$1.90	50¢
Los Angeles to Washington, D.C.	\$2.50	65¢

Add 10% Federal Excise Tax



NOW THAT WE'RE

*"Automated"*

**you get SUPER FAST Delivery!**

By the carton, case, keg or carload . . . no matter how you buy fasteners, Lamson & Sessions now gives immediate delivery on most standard fastener products.

The streamlined operations in our new plants have speeded up both production and delivery so we can now be there with "the mostest, fastest"!

As manufacturers of *the most complete line* in the bolt and nut industry, chances are we can fill your order from stock *right now!* Try us and see.



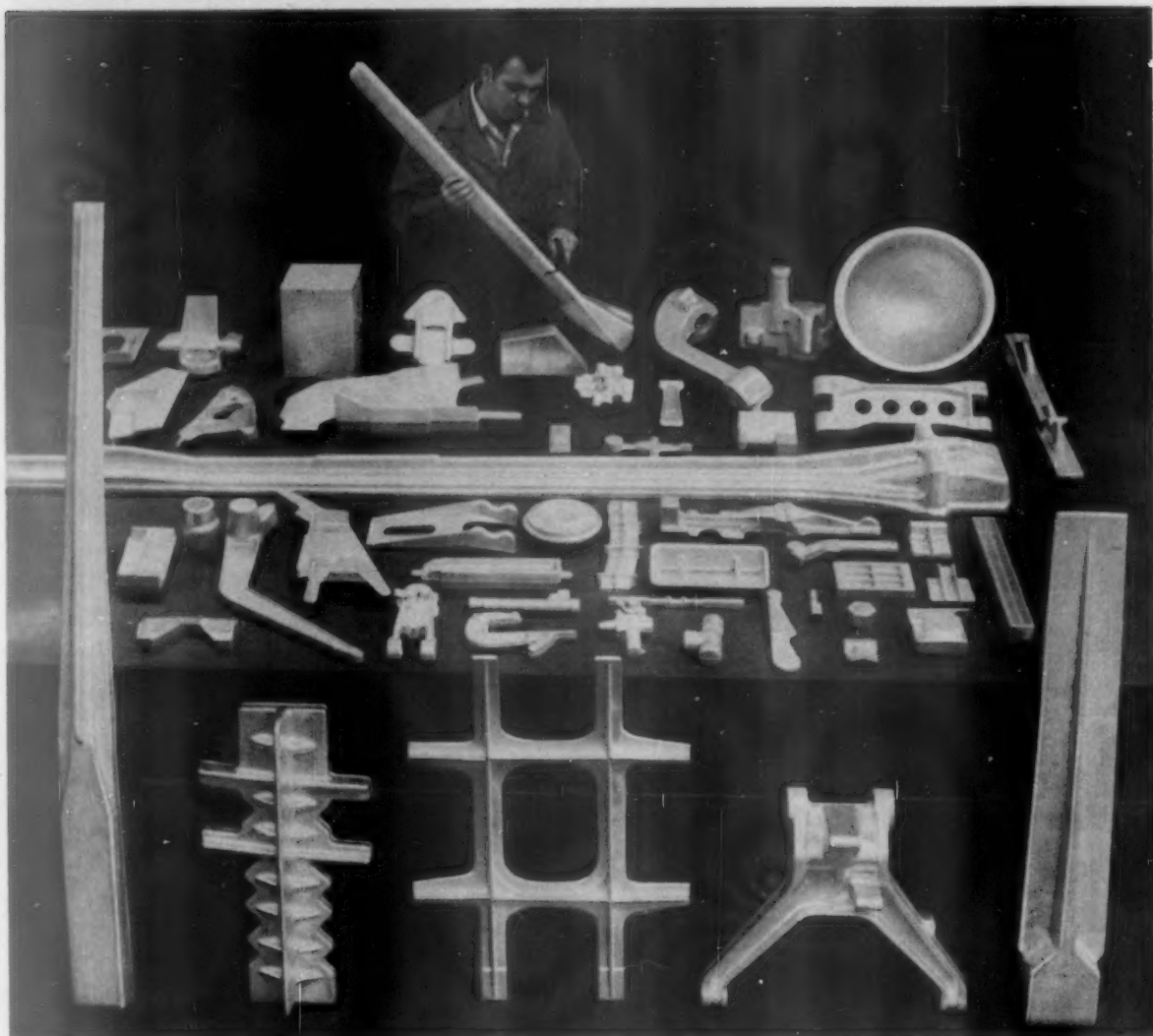
Enclosed freight car loading of kegs and cartons containing many different kinds of fasteners. If you prefer truck shipment, Lamson has a 10-truck enclosed loading dock, too.



**The LAMSON & SESSIONS Co.**

5000 TIEDEMAN ROAD, CLEVELAND 9, OHIO • PLANTS AT CLEVELAND AND KENT, OHIO • CHICAGO • BIRMINGHAM





# FORGINGS...any type

## ...from Harvey Aluminum

**press, no-draft,  
conventional, ring,  
hand, smith**

**WHEN IT COMES TO FORGINGS, REMEMBER:** Harvey Aluminum makes any type...any size...any quantity...in all aluminum and titanium alloys. And Harvey's *completely integrated* facilities give you price, delivery, quality, and service. For more information and technical assistance on forgings, write direct to Harvey Aluminum, Torrance, Calif., or contact the nearest Harvey Aluminum factory branch listed under "Aluminum" in your classified directory.

For new free brochure, Mill Products and Alloys, write Harvey Aluminum, Torrance, California.

*A major independent producer of quality aluminum in all alloys and sizes: Pig, ingot, billet, rod and bar, pipe, tube, hollow sections, press forgings, forging stock, hand forgings, impact extrusions, electrical bus bar, structurals, special shapes, light and heavy press extrusions, screw machine and other aluminum products. Similar products in titanium, zirconium, and steel. HARVEY ALUMINUM SALES, INC., Torrance, California.*

# **HARVEY**

## **Aluminum**



# Washington Report

THE Middle East crisis will alter the pattern of U. S. business recovery. If the situation gets worse, industrial buyers as well as consumers will anticipate war dislocations.

Even if there is no shooting war, the Middle East will not be a quick and easy venture for the U. S. It is likely to drag out. We will have to back up our military excursion with large chunks of economic and technical aid.

In any event, the Middle East points up the need for more conventional weapons—small arms, tanks, aircraft. This creates demand for steel, copper and aluminum. In addition, the Soviets will be more cautious in offering basic metals at cheap prices on world market.

## No Shortages

However, the thinking in Washington is that all-out—or even large-scale—war is not in the making. And no shortages are looked for, with the possible exception of spot shortages of newly developed electronic components.

The Middle East crisis is not a war situation. Also, it is not peace. It fits into the now familiar pattern that has been with us since the close of World War II. Problems build up in an area, they boil over, and we have to either abandon the area or stabilize it. Each time this happens, the process is costly. It creates demand for materials and injects a new cycle of inflation.

The immediate effect of the emergency is to firm up thinking that the recession is behind us. Washington's time table roughly shows improvement during the fourth quarter. Demand for steel and nonferrous metals will be greater, as the auto industry goes into its new models. Public reaction to the new models will determine the size of the market—and it will be early spring before the auto industry picture begins to come through clearly.

The inventory picture still

shows a trend toward liquidation. The key is that overall inventories in the U. S. industrial and distributive pipelines last summer had topped the \$90 billion mark.

Liquidation has been going on at the rate of \$9 billion a year—and only in the last several months has it slowed down.

The prospect is for this slowing down process to continue. How much and how fast is still open to question. Conceivably the level of inventory could work down to \$80 billion, but the odds now are against it. For as confidence rebuilds, higher levels of inventory become more attractive.

Middle East commitments which are now being made indicate a continued market for industrial supplies and consumer goods. Our agricultural surpluses also will be given to the area to prove our good intentions.

The thinking in Washington is that the U. S. will have to prove its contention that we are in the Middle East to aid—not just for military occupation. This means gifts, money loans, and technical aid.

Also, our partners in the Middle East—Britain and France—will have to be supported. Here again, there will be a large area of sustained demand.

This does not mean that there will be a quick turn-around from inventory liquidation to inventory accumulation. There will be further liquidation and some balancing. As the rate of liquidation declines, the level of industrial output will increase—and these will be the signs of recovery that will continue, to mark up plus signs in the economy.

## Metals Prices Mixed

Price trends still remain mixed. No shortages, but a number of factors continue to react on prices.

In the metals field, the reluctance of the steel industry to hike its prices is looked on as temporary. The third quarter profit picture for some steel companies

ANOTHER BIG  
REASON WHY YOU  
GET **MORE** with a

**Cordley**  
NEW YORK



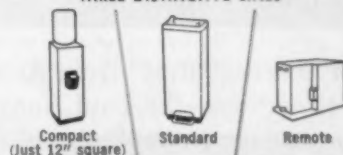
**\* GENEROUS FIVE YEAR GUARANTY**

Behind every Cordley model stands the broadest Guaranty in the industry. You get a new cooler if the Hermetic Refrigeration System or Cooling Tank fails inside of five years. And Cordley pays the freight both ways. All electrical parts are also covered in the Cordley 5 Year Guaranty.

## 7 Features that spell value

- Dual, mechanically-operated controls—power failure does not affect water flow.
- Extra service connections—for glass fillers and remote fountains.
- Easy-to-clean pre-cooler—just a few strokes with a bottle brush.
- Uniform-pressure, splash-proof jet—for easy, natural drinking.
- Contamination-proof—all coils bonded externally.
- 7-point thermostat—maintains water at temperature most desired.
- \* Generous five year Guaranty—your assurance of long-term dependability.

**Cordley Water Coolers**  
Give You All The Advantages  
NOW AVAILABLE IN  
THREE DISTINCTIVE LINES



There's a Cordley Water Cooler for any drinking water requirement. Write today for complete information on each model... plus data on new Cordley Hot and Cold Water Dispensers.

Ask for Catalog 58.

Look for your  
nearest Cordley Distributor  
in the Yellow Pages.



**CORDLEY & HAYES**

443 Fourth Avenue, New York 16, N. Y.  
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**NOW  
FASTER,  
SAFER  
SHIPPING**



**AMERICAN ANNOUNCES  
THE PAUL  
BUNYAN BOX**

Now another "first" from American Airlines that means better service—the Paul Bunyan Box! Conceived by American and manufactured for American by Grumman, the Paul Bunyan Box (84" x 46" x 62") is all aluminum with wheels and full length hatch. It's **safer**—offering far greater protection from damage, pilferage and weather. It's **faster**—speeding airport handling and aircraft loading. For information, call your nearest American Airlines Airfreight office.

**AMERICAN  
AIRLINES  
AIRFREIGHT**  
*America's Leading Airline*

## Washington Report

will be favorable, despite a low rate of production. These companies reduced their breakeven point by process improvements, using high grade imported ores and beneficiated ores, and through a low price paid for scrap.

The profit picture for the companies operating on a low breakeven point will look pretty good. On the other hand, some of the companies were unable to take advantage of economies—and their profits will be very thin in the third quarter. They will put pressure on the industry leaders to work out a price that gives them adequate returns. Thus, before the end of the third quarter, steel price increases are likely.

In nonferrous metals—specifically copper—it looks like the price bottom was reached. Firming of London prices indicated that world market demand had caught up with supply and that prices will continue to rise.

### Aluminum Price Hike?

Aluminum is another question mark. The Soviet move into the market touched off drops in the British and Canadian prices in recent months—and the U.S. was not far behind. Now that labor is getting more money, domestic aluminum producers are giving careful consideration to a price hike. And they're also studying the possible effects of such a rise on purchasing agents.

The aluminum industry will be very cautious in boosting prices, because of large supplies and great capacity to produce. Price increases in the near future are not in the cards. In zinc and lead, supply again will be the factor, with the outlook for a continued surplus. Still, prices will firm, but no marked increases are looked for.

Chemical prices have shown no indication of going up. In fact, price cuts of \$5 a ton were announced for nitrates—the traditional war baby—at the same time the Middle East upheaval was brewing.—A. N. Weeksler

AUGUST 4, 1958



# STONEHOUSE SIGNS guard against FIRE



In every plant, large and small, fire hazards lurk in unexpected places. These hazards too often explode into the terror of a plant fire . . . destroying lives, property and jobs.

Guard against fires . . . and the losses they inevitably bring . . . with reminder signs from STONEHOUSE. Alert every man in your plant to those potential fire dangers by the use of bright, easy-to-see fire hazard warning signs. Each STONEHOUSE sign is made of enduring, tested materials, and manufactured in accordance with American Standard specifications.

\* Write today for our free, full-color, 64 page catalog of thousands of ready-to-ship safety signs, plus information about custom-printed signs to meet your special needs.

"Signs since  
1863"

# Stonehouse SIGNS

STONEHOUSE SIGNS, INC., Stonehouse Building, 9th and Larimer, Denver 4, Colorado  
For More Information Write No. 170 on Inquiry Card—Page 32



# A Truckload of Potatoes



nce upon a time there was a Diligent Housewife.

She was paying 8¢ a pound for potatoes.

One day a farmer stopped by with a truckload of potatoes. "Lady," he said, "if you buy the whole truckload, you can have 'em for 4¢ a pound."



Now, our Heroine had a nose for a Bargain. "I'll take them," she said, and wrote out a check for \$107.36.

"Dump them in the garage," she said.

She lived to regret her rashness. Her Hubby was fit to be tied. He couldn't get his car into the garage for 2½ years. What's

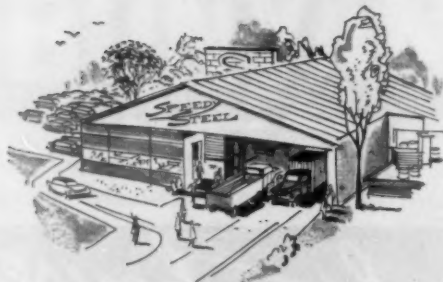


more, Diligent Housewife always had the dickens of a time digging out just the right size potato.



Besides, Hubby grumbled about how their money could be collecting interest at the Bank if it weren't tied up in potatoes.

Finally, Diligent Housewife hung this Motto in her kitchen:



At the 1958 Annual Meeting of the A.S.W.A., this message won the Producer Award for the best single advertisement in the interest of America's steel service centers.

Many steel users long ago learned the same lesson. When they need steel in small or moderate lots, they get it from their local steel warehouses, when they need it, and in the sizes they need. Always remember your "Service Center for Steel."

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.  
On the Pacific Coast Bethlehem products are sold by Bethlehem  
Pacific Coast Steel Corporation  
Export Distributor: Bethlehem Steel Export Corporation

## BETHLEHEM STEEL







## helps custodians where they need help most

Industrial washrooms need a program of penetrating cleanliness that kills bacteria, suppresses odors, removes drain build-ups, even discourages waste while encouraging good hygiene.

### What's involved?

The three sensible steps of the West Protective Sanitation Program. An inexpensive way to help custodians where they need help most.

### What does it include?

First, a scientific, heavy-duty cleaning of washroom facilities at regular intervals as traffic requires. This insures sanitary conditions. Cleans thoroughly. Destroys germs that cause T.B., Polio, Typhoid, Influenza and other diseases. Prevents drain clogging. And provides for continuous freshening of air.

Second, training for custodians so that they know how to maintain high standards of sanitation between heavy-duty cleanings.

Third, an analysis of washroom equipment that often leads to easier maintenance as well as savings in towels, soap and other supplies.

The West Protective Sanitation Program frequently prevents enough waste to pay for itself. Why not talk it over with a West Sanitation Specialist. Just write. Or call your local West office.

Programs and Specialties for  
Protective Sanitation and Preventive Maintenance



WEST DISINFECTING DIVISION

WEST CHEMICAL PRODUCTS INC., 42-16 West Street, Long Island City 1, N. Y.  
Branches in principal cities • In Canada: 5621-23 Casgrain Ave., Montreal

- ☐ Please send information on the West Protective Sanitation Program.
- ☐ Please have a West Representative telephone for an appointment.

Name \_\_\_\_\_

Position \_\_\_\_\_

Mail this coupon with your letterhead to Dept. 15



Shipment of tape for you, Charlie. How come you changed brands?

*So now you wanta run the Shipping Department! Changed because me and Purchasing agreed that Safetex would save us time and money.*

Knowing you, Safetex must save work, too!

*If you don't stop yakkin', we'll be outta tape before you get this unloaded!*



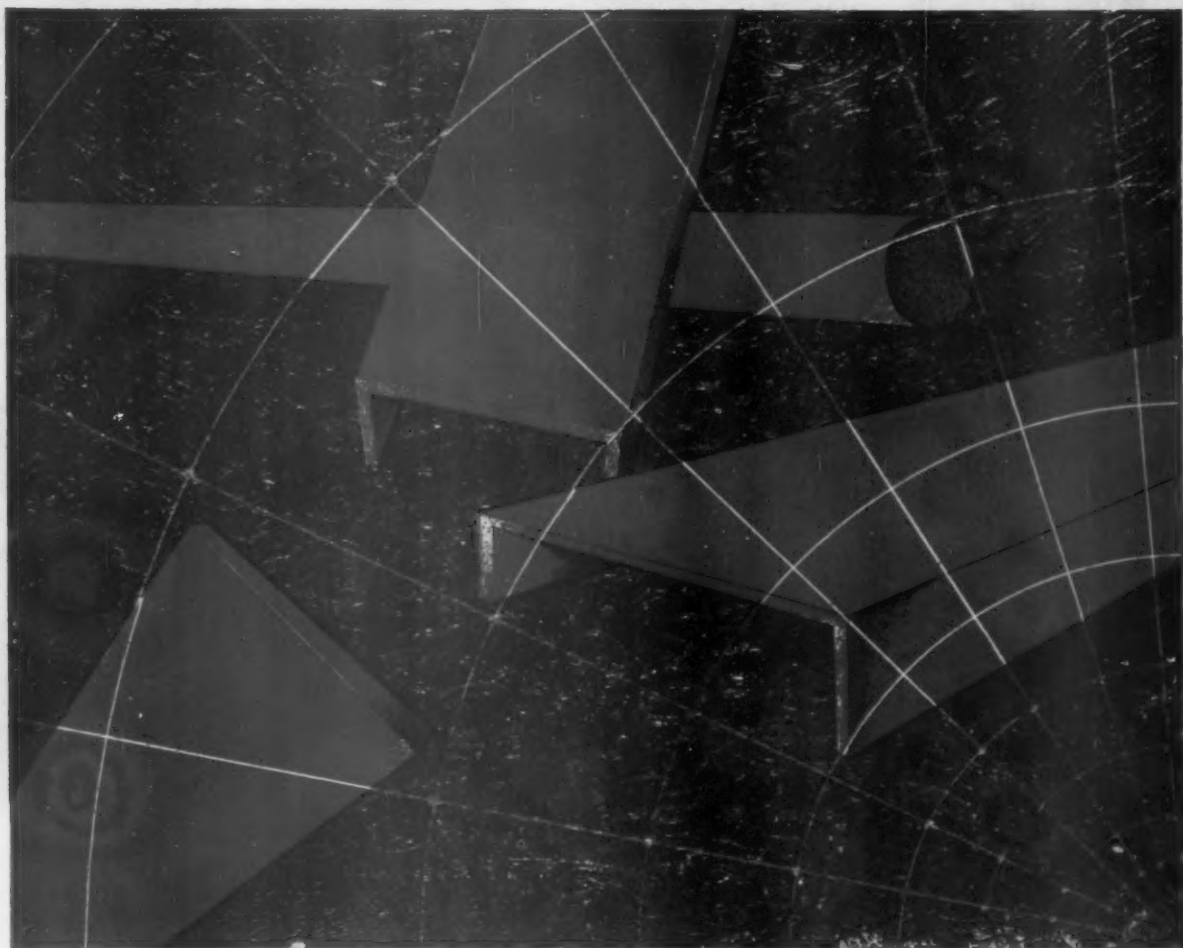
Any smart Shipping Department foreman can tell you that SAFETEX seals right . . . the first time, every time! For efficiency and economy, order the gummed tape that smart Shipping Department foremen want . . . SAFETEX!

**SAFETEX SUPERSTANDARD GUMMED TAPE**



CENTRAL PAPER COMPANY • MENASHA, WISCONSIN

For More Information Write No. 173 on Inquiry Card—Page 32



## Use quality **USS** Stainless Steels ...available at your steel service center

**By ordering USS Stainless Steels** from a steel service center, you can avoid costly idle inventory and get delivery of the material you want . . . when you want it.

Here's your opportunity to combine the money-saving benefits of a steel service center with the fine, quality-controlled products of United States Steel. USS Stainless Steels are available right now, because of their strategically planned, wide distribution.

Remember, as a part of the American Steel Warehouse Association, your steel service center has been set up specifically to handle your immediate steel demands. So the next time you order stainless from your steel service center, be sure to specify *USS Stainless Steel*.





Orders for parts and accessories are processed immediately, and filled from the vast stock at Honeywell's Central Supply Depot.

## **Reduce your instrument supplies inventory . . .**

***let this Honeywell Central Supply Depot stock them for you***

You save storage and inventory control costs, when Honeywell stocks your instrument parts and accessories at this Central Supply Depot in Philadelphia.

Recorder charts and inks, thermocouple wire and wells, extension wires, and all the other instrument supplies you need are stocked here. Thousands of different kinds of instrument parts, too.

You can easily order whatever you need through your nearby Honeywell branch office. Emergency

orders are teletyped to the Supply Depot within minutes. Most orders are shipped within 24 hours.

Prompt delivery of parts and accessories from the Central Supply Depot is but one of the many services that make instrumentation by Honeywell mean far more than just instruments.

MINNEAPOLIS-HONEYWELL REGULATOR Co.,  
*Industrial Division*, Wayne and Windrim  
Avenues, Philadelphia 44, Pa.—in Canada, Toronto 17, Ontario.



MINNEAPOLIS  
**Honeywell**  
BROWN INSTRUMENTS

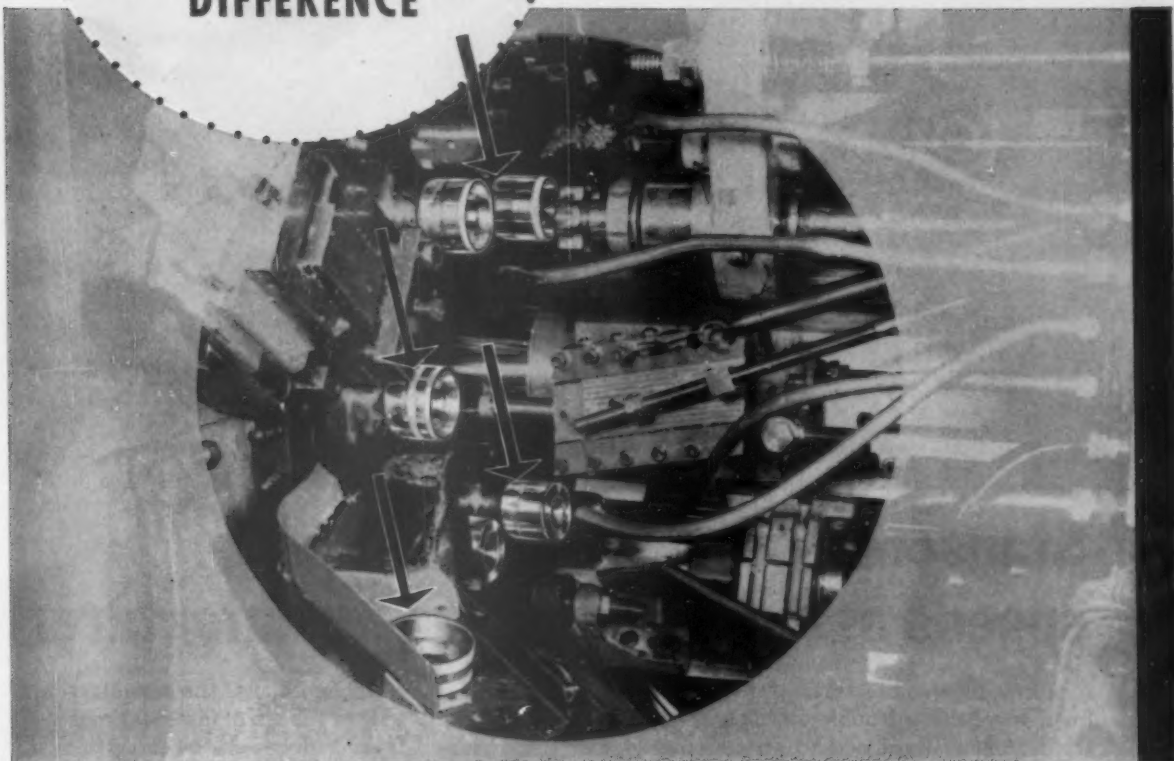
*First in Controls*



**RIGHT WHERE  
IT COUNTS...**

**THE TOOLS  
KNOW THE  
DIFFERENCE**

**MUELLER BRASS CO.  
S-C RED TIP ROD  
runs better.. produces  
more uniform parts  
and products**



Users say, "Incidence of tool trouble has been reduced about 50% since we switched to RED TIP ROD."

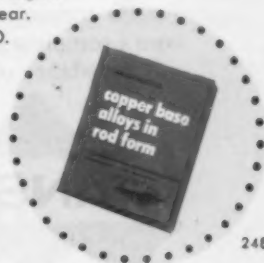
A report like this doesn't happen by accident. We planned it that way! We made sure that the strength, quality and machinability of Mueller Brass Co. S-C (super-cutting) Red Tip Rod . . . NEVER VARIES!

Our laboratory technicians utilize a direct reading spectrometer to analyze the metal from the beginning of the melt stage. A specially developed process cools the billets uniformly, improving internal soundness of each billet. An accurate system of stamping and recording each billet is a further control procedure which assures the customer that each order for rod is filled from billets of identical composition; that practically no variance exists from one rod order to the next! Finally, statistical quality control histograms are employed to insure the consistent uniformity of Red Tip Rod.

The uniformity of Red Tip Rod shows up . . . where it counts . . . in your machines. High cutting speeds with heavier feeds means higher production in your shop; close control of chemical composition, physical structure and hardness of Red Tip Rod enables you to maintain consistently exact dimensions on your products.

The end result of Red Tip Rod uniformity . . . more accurate, uniform parts . . . with fewer rejects . . . at higher speed . . . with less down-time for tool wear. Make your next order S-C RED TIP ROD.

Engineering data on available red alloys, their chemical, mechanical and physical characteristics plus machinability ratings, is included in the booklet, "Copper Base Alloys in Red Form." Send for your free copy today.



**MUELLER BRASS CO. PORT HURON 30, MICHIGAN**

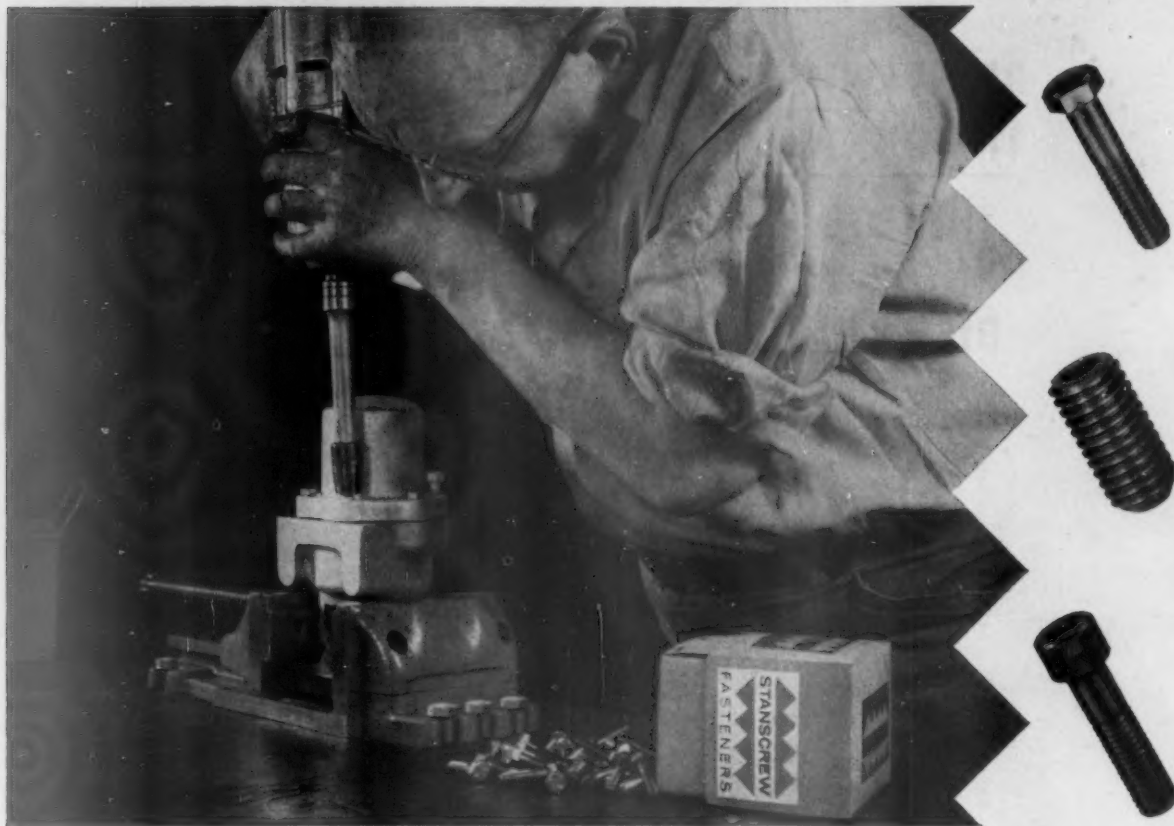
← For More Information Write No. 175 on Inquiry Card—Page 32

AUGUST 4, 1958

For More Information Write No. 176 on Inquiry Card—Page 32

31

IT PAYS TO STANDARDIZE ON STANSCREW



## Stanscrew service cuts rejects, speeds assembly for valve manufacturer

A prominent manufacturer of 4-way valves for freon was having trouble on his assembly line. His fasteners, tightened to an extreme degree to prevent seepage of the gas, were breaking on too many occasions. This meant complications in assembly and a high reject rate—which increased production costs substantially.

One of Stanscrew's fastener specialists, called in by a Stanscrew distributor, quickly found the answer. He recommended a standard cap screw and had staff engineers work out the precise torque which should be applied to insure a complete seal at all gaskets, yet eliminate any possibility of fastener breakage. By follow-

ing these recommendations, the manufacturer has eliminated the problem of fastener breakage, and substantially reduced his reject rate.

Stanscrew offers over 4,000 standard fasteners . . . including a complete selection of socket, set, and cap screws. All are produced under rigid quality control methods and incorporate the lessons learned during 85 years of fastener manufacture. All 4,000 are always in stock and quickly available.

For the answer to your fastener problem, call your Stanscrew distributor. He will have a Stanscrew fastener specialist promptly study your operation and make specific recommendations.



### FASTENERS

**CHICAGO** | THE CHICAGO SCREW COMPANY, BELLWOOD, ILLINOIS

**HMS** | HARTFORD MACHINE SCREW COMPANY, HARTFORD, CONNECTICUT

**WESTERN** | THE WESTERN AUTOMATIC MACHINE SCREW COMPANY, ELYRIA, OHIO

**STANDARD SCREW COMPANY** 2701 Washington Boulevard, Bellwood, Illinois

For More Information Write No. 177 on Inquiry Card—Page 32



*Would you substitute price  
for dependability?*

There is no substitute for dependability when choosing a producer of stainless steel.

Requirements are becoming more and more critical every day. Meticulous attention to every detail of pro-

duction is essential. There can be no short-cuts.

You can depend on Carlson to produce the highest quality stainless steel plate; to maintain large stocks of finished plate and heads; and to continue a long record of efficient service.

Most of all, you can rely on our established policy of delivering the highest quality stainless steel at competitive prices. And we never make special arrangements that deviate from this policy.

**G.O. CARLSON** *Inc.*

*Stainless Steels Exclusively*

THORNDALE, PENNSYLVANIA



PLATES • PLATE PRODUCTS • HEADS • RINGS • CIRCLES • FLANGES • FORGINGS • BARS and SHEETS (No. 1 Finish)  
For More Information Write No. 178 on Inquiry Card—Page 32      For More Information Write No. 179 on Inquiry Card—Page 32 →  
AUGUST 4, 1958

Correct Lubrication in Action...

# Production Increased



Removing plastic radio cabinet from an injection press. Santay Corporation pioneered in plastics technology, creating special machinery and processes. From here, intricate, highly finished plastic products are furnished to America's most prominent appliance manufacturers.



**Complete Engineering Program  
Proved Petroleum Products**

# Mobil

SOCONY MOBIL OIL CO., INC., and Affiliates: MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP., MOBIL OVERSEAS OIL CO., INC.



# 27.1% no additional capital investment!

## Santay Corporation finds new ways to increase production of plastics products with the help of Socony Mobil

Competition is at its fiercest in the plastics business. Any unnecessary overhead costs can cut the heart out of profits. For this reason Santay management continually looks long and hard for ways to cut downtime, increase production.

In 1954 a Mobil Correct Lubrication Program was installed throughout the plant. This comprehensive engineering service had these results, according to Santay's plant engineer: "The reduction in downtime, three years after the Mobil

program started, accounted for 27.1% increase in production with no additional capital investment."

This outstanding result was achieved by close cooperation between Santay plant personnel and Mobil. Press operations were closely studied . . . lubrication procedures constantly improved . . . records prepared to show downtime and service frequency on every machine . . . cleanliness of lubricant carefully watched. All this help is yours when you rely on Mobil. Why accept less?



**Problem:** Downtime on a key press could result in a loss of \$250 per hour in product sales. **Cause:** Maintenance follow-through not fully developed. **Solution:** Plant-wide Mobil Program that cut downtime over 25% in first year.



**Oil Control** saves 40% on oil purchases. Under Mobil Program, hydraulic oil is reconditioned . . . oil checked regularly for viscosity and contamination. **Result:** Oil purchases kept to minimum, maximum machine protection assured.



**Problem:** Matching molds on injection press worked out of alignment. **Cause:** Excessive wear on toggle pins and bushings. Lubricant didn't stick to wear surfaces. **Solution:** Mobil recommended oil that "stays put" . . . avoided \$800 shutdowns.



**Cost Control:** Every machine has its control card. Alert watch is kept for press slowdowns, high maintenance. As a result, Santay maintenance personnel with Mobil assistance can move quickly to keep production high, costs low.

# Correct Lubrication

**Another reason You're Miles Ahead with Mobil!**

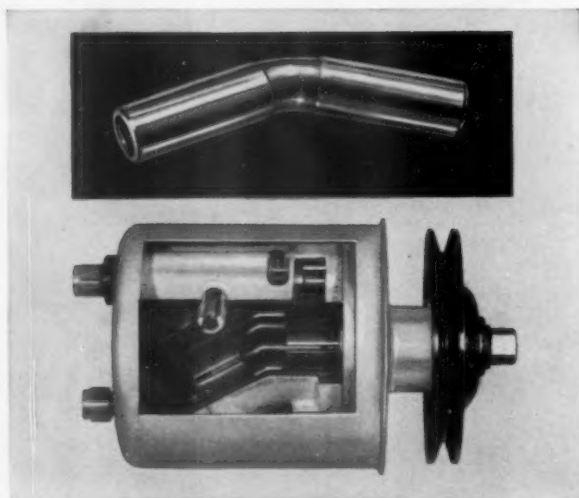
*...Flange it!*  
*Flare it!*  
*Bend it!*  
*Expand it!*



## Republic ELECTRUNITE

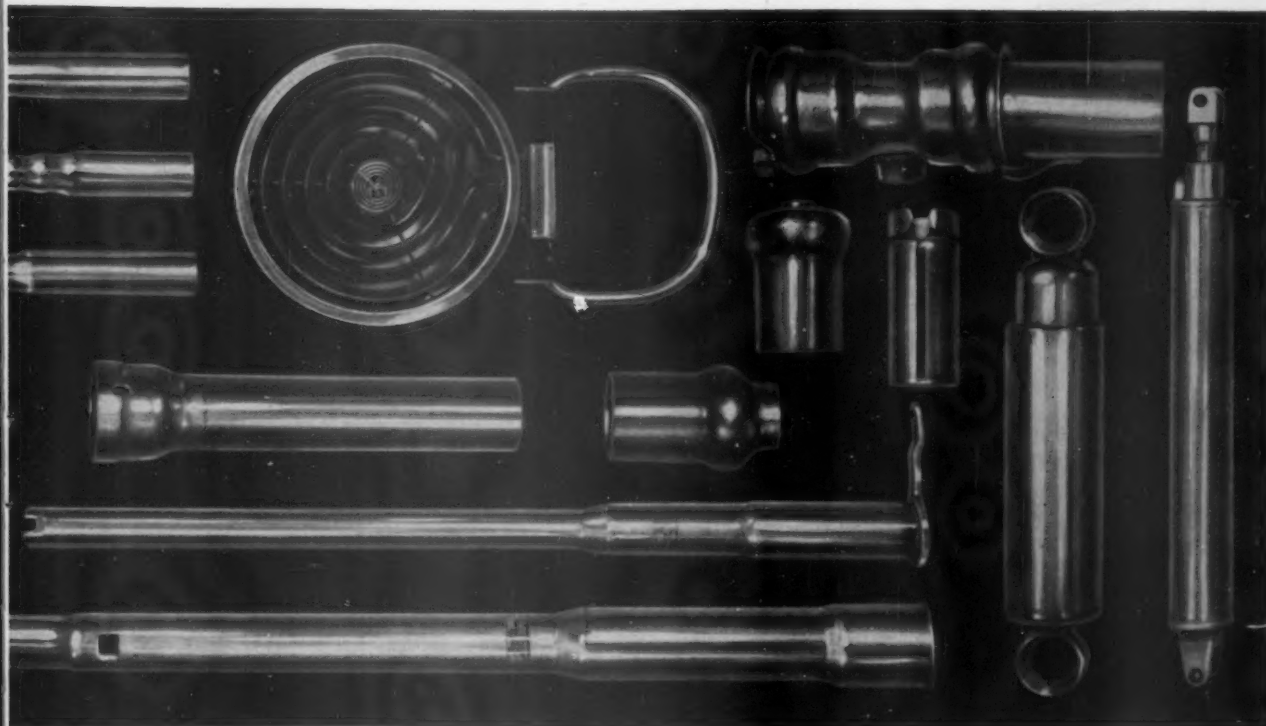


**RANGE BURNER MANUFACTURER STEPS OUT** with Republic ELECTRUNITE Mechanical Tubing. Harper-Wyman Company uses it in forming lightweight, easy-to-clean venturi burner tubes. The company subjects ELECTRUNITE to a hairpin bend of  $1\frac{1}{4}$  diameter radius, then a four-way crimp, followed by punching, notching, and welding. Uniform, predictable ductility avoids stretch and collapse as tubing is severely bent and formed. Republic engineers will help you design ELECTRUNITE into your product to speed production, cut costs, and improve performance. Mail the coupon for facts. Or call your Republic representative.



### WHEN IT'S MOVING . . . MAKE IT TUBING

Republic ELECTRUNITE meets all close tolerance requirements for new Thompson Products automotive pump. Close tolerance, uniformity, ductility, workability — four important performance requirements, all reasons why Republic ELECTRUNITE Mechanical Tubing is used in a new automotive hydraulic power pump assembly. This pump furnishes power for power steering featured by a nationally famous automobile manufacturer. Will-O-Hill Industries, Inc., Willoughby, Ohio, sub-contractor, manufacturers and specialists in close tolerance tubular stampings, cut  $\frac{3}{16}$ -inch diameter ELECTRUNITE into units  $2\frac{3}{16}$  inches long. Each unit is rolled to form a slight groove in the center and bent to an angle of exactly  $150^\circ$ . Nine such pieces are used in each pump assembly. For additional information, send coupon or write today.



# Mechanical Tubing

**fabricates easily . . . economically . . . with uniformity**

Quality makes the big difference!

Republic ELECTRUNIT<sup>®</sup> Mechanical Tubing is quality-controlled from ore to finished product; produced from highest quality flat-rolled open-hearth steel made in Republic's own mills; carefully inspected to Republic's rigid requirements. Republic Tubing is welded by the exclusive ELECTRUNIT process—a continuous electric weld method that unites the wall under pressure without the addition of foreign or extra metal. Tests prove the ELECTRUNIT weld is as strong or stronger than the original base metal.

Among other advantages, this process assures uniformity of wall thickness, strength, ductility, concentricity, diameter, and physical and mechanical properties. And as the world's largest producer of specialty welded tubing, Republic has the facilities, abilities, and equipment to tailor the tube to your end use. Republic also offers complete tube fabricating facilities.

Let Republic engineers help you select the most economical ELECTRUNIT Tubing to meet your severe processing needs. Call your Republic representative or write today.

# REPUBLIC STEEL



*World's Widest Range  
of Standard Steels and  
Steel Products*

**REPUBLIC STEEL CORPORATION  
STEEL AND TUBES DIVISION  
DEPT. C-5160  
259 EAST 131ST STREET • CLEVELAND 8, OHIO**

Please send the following information:

- ☐ Republic ELECTRUNIT Mechanical Tubing
- ☐ Fabricating Facilities
- ☐ Please have a Republic Engineer call

Name \_\_\_\_\_ Title \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

# **Information For Your Catalog Files**

## **ACCELERATORS**

A 12-page, 2-color brochure, Bulletin B, describes both Van de Graeff and linear particle accelerators. Their wide applications in industry are covered, such as for radiographic inspection.

**High Voltage Engineering Corp.**

Write No. 1 on Inquiry Card—Page 32

## **ARC WELDING CIRCUITS**

How to keep arc-welding circuits operating properly is the subject of a 24-page booklet. Many hints are given on how to reduce costs by following certain procedures.

**Hi-Amp., Lenco, Inc.**

Write No. 2 on Inquiry Card—Page 32

## **BLOWER UNITS**

Complete specifications are contained in a 4-page technical bulletin on a line of blower units. They are equipped with spider inlet wheels. Blowers are for air conditioning uses.

**The Torrington Mfg. Co.**

Write No. 3 on Inquiry Card—Page 32

## **CABLES (SILICON RUBBER INSULATED)**

A multi-colored booklet facilitates ordering of specialized electric cable installations. Properties of silicone insulated cables are described. They are designed for 200 C temperatures.

**National Electric Products Corp.**

Write No. 4 on Inquiry Card—Page 32

## **CIRCUIT BREAKERS**

Bulletin SD-100 devotes 16, two-colored pages to QO circuit breakers. Information is also supplied on load centers and panelboards. Tables help to choose the proper type equipment.

**Square D Co.**

Write No. 5 on Inquiry Card—Page 32

## **CLUTCHES**

Electrically-operated devices for engaging and disengaging gears and drives are described in catalog, No. 6304-1A (20 pp). Torque capacities of clutch designs range from 1.8 to 13,000 ft/lb.

**I-T-E Breaker Co.**

Write No. 6 on Inquiry Card—Page 32

## **PHOTOSTATIC, PHOTOGRAPHIC SERVICES**

A comprehensive guide covers services available to buyers of photostats, slide preparation and photographic services. The book contains a series of charts to help plan a visual presentation.

**Admaster Prints, Inc.**

Write No. 7 on Inquiry Card—Page 32

## **PYROMETERS, THERMOCOUPLES**

A 16-page catalog deals with a line of precision matched units. Instruments can be used interchangeably with any pyrometer or thermocouple thermometer for monitoring high heat operations.

**Raymond F. McHugh & Son**

Write No. 8 on Inquiry Card—Page 32

## **STAMPING METAL**

A data file gives full particulars of chromium-molybdenum alloyed gray iron. Applications of this metal alloy in the stamping industry, especially for drawing and die forming, are highlighted.

**The Advance Foundry Co.**

Write No. 9 on Inquiry Card—Page 32

## **THERMOMETERS**

Specifications and prices of a line of helix-actuated thermometers are supplied in catalog, No. 225C. Models have 3" and 4½" diameter dials. Instruments respond fast to temperature changes.

**Moeller Instrument Co.**

Write No. 10 on Inquiry Card—Page 32

## **TRANSFORMER**

A 2-color, illustrated catalog (12 pp., 8½" x 11") describes an over-all self-protected transformer. Cut-away photos and 6 pages of drawings supplement text in pointing up the equipment's features.

**Delta-Star Electric Div.**

Write No. 11 on Inquiry Card—Page 32

## **TRUCKS (FORK LIFT)**

Chief 3 points in buying fork trucks are discussed in a 12-page booklet dealing with units of up to 2000 lb capacity. Points emphasized are: performance; ruggedness; serviceability.

**Hyster Co.**

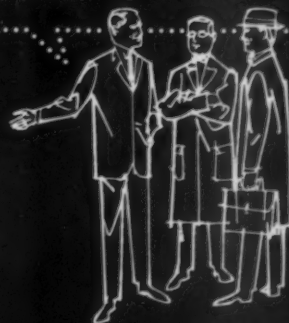
Write No. 12 on Inquiry Card—Page 32



NOW . . . FOR THE FIRST TIME . . . YOU CAN GET  
WELD SCREWS THROUGH YOUR INDUSTRIAL DISTRIBUTOR!

No more waiting for shipments—no need for large, in-plant inventory. Your Industrial Distributor has new, improved P-K Weld Screws. He can serve you promptly, any time and in any quantity, large or small.

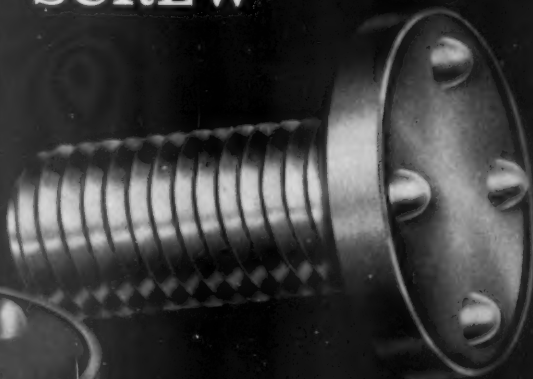
for stronger, neater fastenings . . .  
the new **P-K® RINGUARD\***  
**WELD**  
**SCREW**



TYPE WS-U

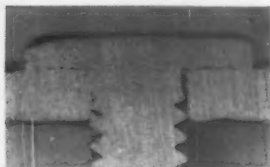


TYPE WS-T



**NEW . . . RINGUARD** controls and guards quality of the weld. Rim construction limits amount of pressure that may be applied during fusion—reduces amount of current required—minimizes burning or discoloration—substantially minimizes “spatter” and “flash”.

**NEW . . . 4-PROJECTIONS** assure proper weld area necessary to develop the full strength of the fastening. P-K® Ringuard Weld Screws are available with projections on top of head (Type WS-T) or with projections under the head (Type WS-U).



**RINGUARD** weld screw—Observe the complete contact of the head of the screw with the work. This is doubly important where work is to be porcelainized or enameled.



**ORDINARY** weld screw—Since fusion is uncontrolled, weld is not uniform. Note the possibility of corrosion due to moisture condensation in space between head and work.

Ask your P-K Distributor for samples and complete information, or write Parker-Kalon direct.

**PARKER-KALON®** **Ringuard\*** weld screws

**PARKER-KALON DIVISION**, General American Transportation Corporation, Clifton, New Jersey

See the Ringuard Weld Screw in P-K's Booth #739—at the Design Engineering Show—Chicago—April 14-17/\*Patent Pending.

... now your distributor can supply **both**



*Speed...*

There are many times when one bearing in hand is worth a thousand at the factory. Bunting's complete line of both Cast Bronze and Sintered Oil Filled Bronze Bearings and Bars and Bunting's complete national distribution through leading wholesalers solve practically all bearing problems instantly everywhere.

... buy Bunting Bearings from your Bunting Distributor

Your Bunting distributor is listed in the classified section of your telephone directory usually under Bars—Bronze, and Bearings—Bronze. Two Bunting factories and eleven Bunting Branch Warehouses expedite distribution in all areas. Ask your local Bunting distributor or write for catalogs.



**Bunting®**

BUSHINGS, BEARINGS, BARS, AND SPECIAL PARTS  
OF CAST BRONZE AND POWDERED METAL

Ask for Catalog No. 52—Cast Bronze  
Catalog No. P-56—Sintered Bronze

THE BUNTING BRASS AND BRONZE COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

For More Information Write No. 183 on Inquiry Card—Page 32

## Catalog Files

### RUBBER (SYNTHETIC)

A 40-page multi-colored catalog, copiously illustrated, reviews synthetic rubbers in general. In particular, the booklet deals with the types, properties and uses of Plioflex rubber.

The Goodyear Tire & Rubber Co.

Write No. 13 on Inquiry Card—Page 32

### SCREW MACHINE BLANKS

A technical bulletin, Fact File No. 1, gives design, production and application data on screw machine blanks. These blanks enable hydraulic pump pistons to be manufactured to close tolerances.

National Screw Machine  
Products Association

Write No. 14 on Inquiry Card—Page 32

### TEFLON ROD STOCK

Teflon rod stock is the subject matter of Fact Sheet No. 1. The 4-page brochure supplies available sizes, engineering data, tips on machining and typical uses of the rod stock.

Chemplast, Inc.

Write No. 15 on Inquiry Card—Page 32

### TOOLS (FORM)

Catalog No. 58 (16-pages, 2-colors) lists over 1500 items in the field of circular form tools and blanks. Hints are given on the correct cut-off tool to use to save part material.

Soom Tool Co.

Write No. 16 on Inquiry Card—Page 32

### TOOLS (POWER)

A pocket-size (5" x 6½") catalog, No. 85, devotes 47 pages to listing and describing power tools of every description. Specifications cover both electric and air operated portable units.

Thor Power Tool Co.

Write No. 17 on Inquiry Card—Page 32

PURCHASING

## ARABOL SPECIFICATION ADHESIVES

*Cold...or colder*



### ICE-TITE AND COLD-PROOF ADHESIVES

Bottle labels and frozen food containers require adhesives which must resist either ice-water or extreme cold in packing, storage, shipping and handling. Only in this way can the consumer be assured that he is getting the brand he wants, in good condition. If shoppers recognize the brand and are satisfied with the appearance of the bottle or package—they will buy, and buy again.

The adhesives used in this type of packaging must also perform efficiently and economically on packaging machines.

ARABOL Adhesives are specification-formulated for dozens of other requirements—in the making, packaging, labeling and shipping of the products of industry. *Specification* adhesives—to meet each of your requirements—cost little more (and sometimes less) than run-of-mill adhesives.

We invite the opportunity to submit formulated samples—for tests to be made in your own plant—under your own particular working conditions. That is the one kind of testing that assures you of satisfactory results.

Our fourteen plants and warehouses—plus four laboratories—are your assurance of service and delivery. It is our privilege to serve the leaders, as well as hundreds of small users. May we send you a helpful booklet listing 23 basic specifications for adhesives? Kindly address your inquiry to Department 16.



**ARABOL**  
**73** YEARS OF  
PIONEERING IN THE  
MAKING OF ADHESIVES

THE ARABOL MFG. CO. . . . a nationwide organization serving major users of industrial adhesives

EXECUTIVE OFFICES: 110 East 42nd Street, New York 17, N.Y. • CHICAGO • SAN FRANCISCO • LOS ANGELES • ST. LOUIS • ATLANTA • PHILADELPHIA  
BOSTON • PORTLAND, Ore. • ITASCA and McALLEN, Tex. • CINCINNATI • DENVER • TAMPA • LONDON, Eng.

For More Information Write No. 184 on Inquiry Card—Page 32

AUGUST 4, 1958

41

Uniform  
Class 3 Fit

## BOLTS NUTS STUDS

### TITANIUM

- Carbon Steel
- Alloy Steels
- Stainless Steels
- Silicon Bronze
- Naval Brass
- Monel Metal

You can depend on a uniform Class 3 fit if required when you buy Pawtucket threaded fasteners. Standard items or specialties — all Pawtucket products are accurately made in standard dimensions or to your specifications. Heat treating with precision-controlled modern equipment.



BETTER BOLTS SINCE 1882

# PAWTUCKET

MANUFACTURING COMPANY

327 Pine St. • Pawtucket, R. I.  
THE PLACE TO SOLVE YOUR BOLT PROBLEMS  
T.M. REG.

"The Bolt Man"

For More Information Write No. 185 on  
Inquiry Card—Page 32

## Letters To The Editor

### FIGURES AND CURVES

In your May 26 issue you published a nice assortment of curves showing the prices of various commodities during the last 12 months.

Per chance, do you have similar curves that go back much further into history, say for 10 years?

If these are available, we should very much appreciate receiving those on copper and secondary aluminum.

H. P. Richter

D. W. Onan & Sons Inc.

Minneapolis 14, Minnesota

• We're pleased that reader Richter liked our assortment of curves. Unfortunately we have not been publishing this information for 10 years and so do not have it in our files. We suggest as a possible source for this information the American Metal Market, New York City.

### SALESMEN'S CALLS

We have a reprint of an article entitled, "Scheduling Salesmen's Calls" by Julian Davies, which appeared in the November, 1956 issue of PURCHASING Magazine.

We would like to reproduce this article for internal distribution and request permission to make copies of this presentation.

Please advise whether or not your magazine will permit us to use your material in this way.

Gerrard R. Hickey

Whitehead Metal Products Co., Inc.

New York 14, New York

• Permission to reprint articles in this way is almost always granted. All we ask is that prior approval be obtained.

### N.A.P.A. MEMBERSHIP

I would appreciate learning from you the correct procedure for becoming a member of the National Association of Purchasing Agents.

I would like to know if you have a chapter in Silver Spring, Maryland or is it necessary to belong to the District of Columbia chapter?

John P. Callahan

Purchasing Agent

Fisher Scientific Company  
Silver Spring, Maryland

• PURCHASING is an independent magazine, not the official organ of any association. However, we do report the meetings and proceedings of the national association as fully as space permits because of the value it affords members and non-members alike. Anyone interested in joining one of the local chapters located throughout the United States or Canada should write: Howard G. Ahl, executive secretary - treasurer, National Association of Purchasing Agents, 11 Park Place, New York, New York.

### ANOTHER SERVICE

On page 53 of the June 9 issue of PURCHASING Magazine, under the headline, "Purchasing People in the News," you have an item about Robert E. Tucker.

Mr. Tucker has been a personal friend of mine for many years and during the last two or three years, I lost contact with him. After seeing the item in your magazine, I sent a letter of congratulations to him. I very much appreciate your giving me the opportunity to get in touch with him once again.

Jerry Krandall

Abrasive Dressing Tool Company  
Detroit 3, Michigan

• We are extremely pleased to have been the cause of two old friends getting together again. It is just another of the ways we carry out the pledge made in our first issue, over 43 years ago: Everything we do or print is calculated to instruct, improve and interest purchasing agents.

### READ AND RE-READ

This will tender somewhat belated, but nonetheless sincere,

PURCHASING



# MAKE SURE YOUR SHIPPING RATES COVER **DOOR-TO-DOOR DELIVERY**



## **RAILWAY EXPRESS COMPLETE SERVICE** can mean great savings in time and money

Many so called "bargain" carriers quote prices which do not include *complete service*. With Railway Express you know you get door-to-door delivery. Your shipments are picked up

and delivered at no additional cost within REA vehicle limits. This plus many other advantages assures you the fastest possible shipping at the lowest possible cost.

---

### HERE ARE **DOWN-TO-EARTH** FACTS ON RAILWAY EXPRESS SERVICE

**Widest  
Coverage—**

Railway Express serves some 23,000 communities to give you mass distribution—with *one company responsibility*. You reach *every* major market in the U. S., and with REA World Thruway Service—most every major market abroad. No worries about delays and divided responsibility in transferring between two or more carriers.

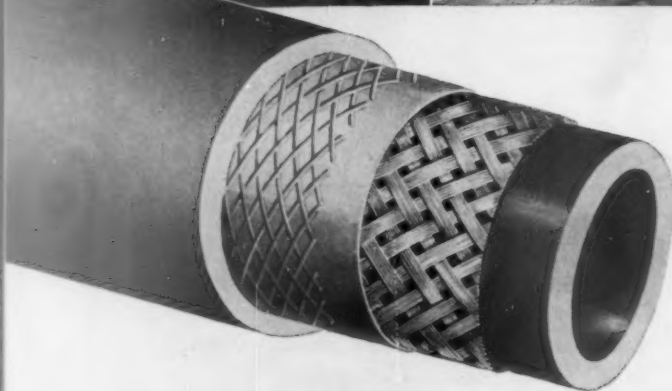
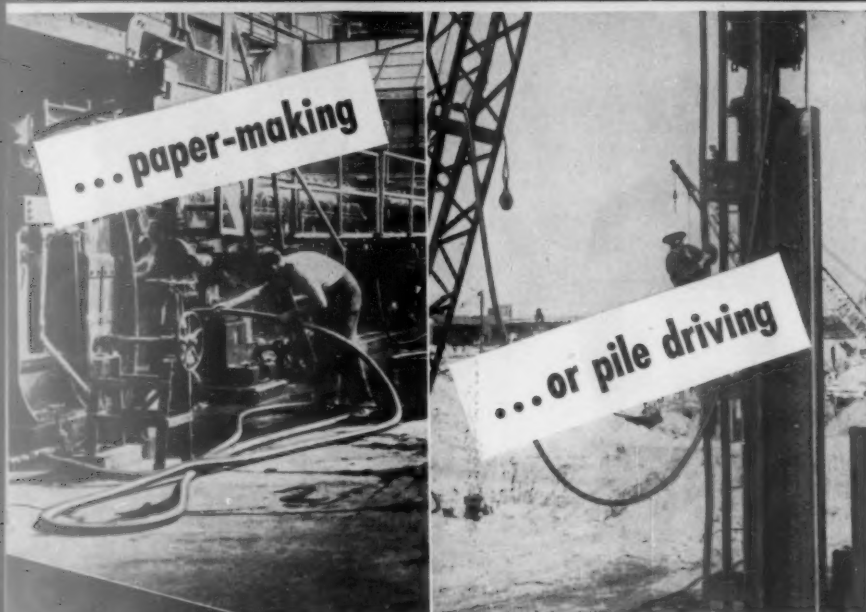
**Special Low  
Rates—**

Railway Express offers special low commodity rates on ready-to-wear merchandise, graphic arts materials, hosiery, shoes, drugs, import-export traffic and for many other categories. Call your nearest Railway Express Agent. He'll tell you why—



## THE BIG DIFFERENCE IS **RAILWAY EXPRESS**

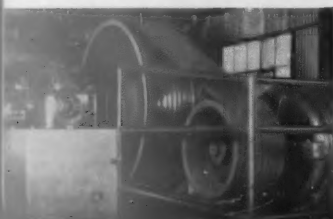
# There's a Thermoid Hose for every job



Cut costs with  
Thermoid Conveyor Belting ...



... and Thermoid Multi-V Belts



## And for your job, too!

You'll find Thermoid has a hose that wears better, lasts longer, stays "on the job" to save you time and money. Each Thermoid Hose is built to do a specific job best. The same is true of Thermoid Conveyor Belting, Multi-V Belts and Friction Materials. Call your local Thermoid Distributor today.



Thermoid Company  
Trenton, New Jersey  
Nephi, Utah

## Letters

congratulations to you and Msrs. Welch and Van de Water for the interesting and provocative articles on purchasing policies and manuals in the March 31 issue. They have been read and reread.

We consider **PURCHASING** to be one of the most useful journals.  
E. O. Jones  
Associate Director of Purchasing  
Ethyl Coporation  
Baton Rouge 1, La.

## SUB-CONTRACTS

We would like to know whether there are any texts or possibly U. S. Government publications on the general subject of sub-contracting, with specific references to time and material arrangements, contract forms, etc.

Your assistance in connection with the above will be appreciated.

I. Jacobson  
Purchasing Agent  
Nuclear Development Corp.  
White Plains, N. Y.

• The armed services has a set of regulations called the A.S.P.R. (Armed Services Procurement Regulations) in which government procedures on various types of contracts is discussed. To procure a copy, we suggest that you check either with your contracting officer, if you're doing government work, or with a local military procurement officer.

## INVENTORY TABLES

Thank you very much for the copies of "Inventory Control Systems and Tables" by D. C. Grebe and J. R. Zwerle which are in use at St. Regis Paper Company. This is very valuable information and it is much appreciated.

A. L. Pomeroy  
Purchasing Agent  
Howard Smith Paper Mills  
Limited  
Cornwall, Ont., Canada

• We still have a very few copies of this excellent reprint available and will be more than happy to send a set, without charge, to anyone requesting a copy.

For More Information Write No. 187

←on Inquiry Card—Page 32

For More Information Write No. 188  
on Inquiry Card—Page 32→



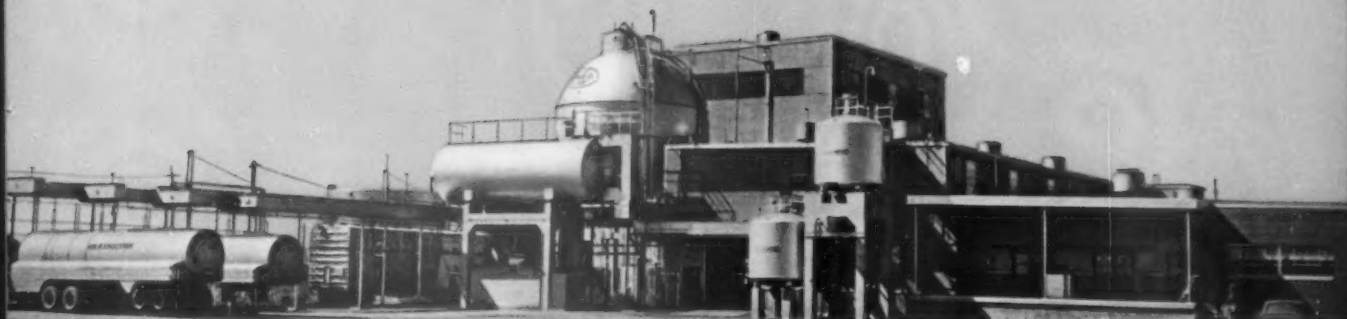
# INDUSTRIAL GASES... NATIONWIDE... FROM AIRCO



Air Reduction gases, among them oxygen, nitrogen, argon, hydrogen, helium and carbon dioxide are vital commodities in the metal-working industries.

In other industries, too, Air Reduction gases are playing an important role—food processing, electronics, steel, aircraft and missiles, and chemicals.

To all industries, Air Reduction supplies gases in whatever quantity needed, and in whatever form—gaseous or liquid. (Except hydrogen—available in gaseous form only and helium also available in liquid form currently on West Coast only, elsewhere in gaseous form.) Air Reduction industrial gas specialists, with years of practical experience and technical training, are at your service to help you make the most efficient use of industrial gases. Ask the Airco representative in your vicinity to show you why your gas requirements are best served by Air Reduction.



Offices and dealers in  
most principal cities

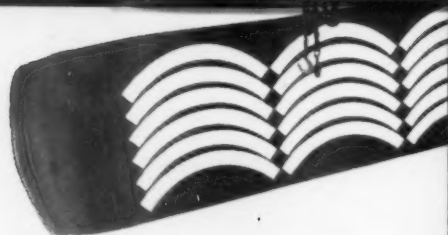
## AIR REDUCTION SALES COMPANY

A division of Air Reduction Company, Incorporated  
150 East 42nd Street, New York 17, N. Y.

On the west coast —  
Air Reduction Pacific Company  
Internationally —  
Airco Company International  
In Cuba —  
Cuban Air Products Corporation  
In Canada —  
Air Reduction Canada Limited  
All divisions or subsidiaries  
of Air Reduction Company, Inc.

AT THE FRONTIERS OF PROGRESS YOU'LL FIND AN AIR REDUCTION PRODUCT • Products of the divisions of Air Reduction Company, Incorporated, include: AIRCO — Industrial gases, welding and cutting equipment • AIRCO CHEMICAL — vinyl acetate monomer, vinyl stearate, methyl butynol, methyl pentynol, and other acetylenic chemicals • PURECO—carbon dioxide—gaseous, welding grade CO<sub>2</sub>, liquid, solid ("DRY-ICE") • OHIO—medical gases and hospital equipment • NATIONAL CARBIDE—pipeline acetylene and calcium carbide • COLTON—polyvinyl acetate, alcohols, and other synthetic resins.

With Airco's  
Multiple-Torch Flame Cutting Equipment...



# MACHINE QUALITY CUTS



Whether it is the warehousing of steel parts for supply to metal-fabricators, or the production of parts by fabricators for assemblies and end products, multiple-torch flame cutting today plays a role of growing importance in modern industry.

"Machine quality" means close-tolerance cuts with equipment such as Air Reduction's Travograph® (shown in action), just one item in Airco's extensive line. It means

elimination of plate-edge preparation for close fit-up, reduced handling and reduced labor costs . . .

Quality cuts with Airco machines are obtainable on a wide range of steel thicknesses for an unlimited variety of shapes. For information about the Airco cutting equipment best suited for your job, call your nearest Airco District Office, or write for literature.



Offices and dealers in  
most principal cities

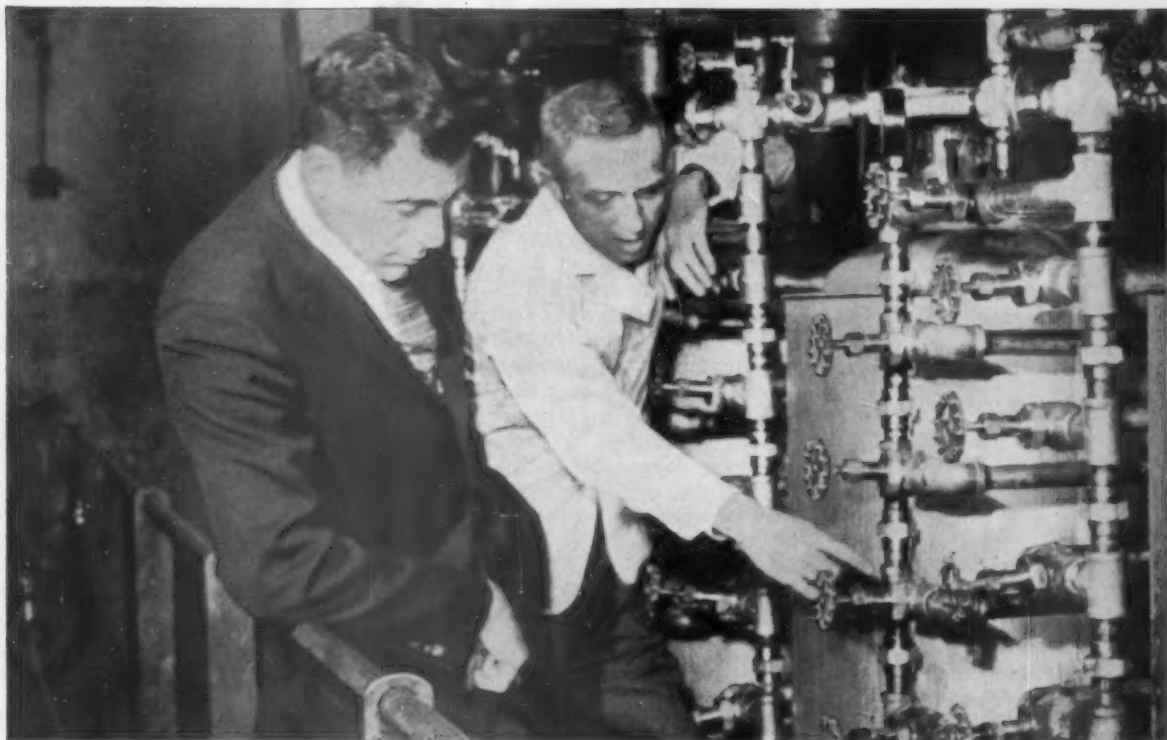
## AIR REDUCTION SALES COMPANY

A division of Air Reduction Company, Incorporated  
150 East 42nd Street, New York 17, N. Y.

On the west coast —  
Air Reduction Pacific Company  
Internationally —  
Airco Company International  
In Cuba —  
Cuban Air Products Corporation  
In Canada —  
Air Reduction Canada Limited  
All divisions or subsidiaries  
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AT THE FRONTIERS OF PROGRESS YOU'LL FIND AN AIR REDUCTION PRODUCT • Products of the divisions of Air Reduction Company, Incorporated, include: AIRCO — Industrial gases, welding and cutting equipment • AIRCO CHEMICAL — vinyl acetate monomer, vinyl stearate, methyl butynol, methyl pentynol, and other acetylenic chemicals • PURECO — carbon dioxide — gaseous, welding grade CO<sub>2</sub>, liquid, solid ("DRY-ICE") • OHIO — medical gases and hospital equipment • NATIONAL CARBIDE — pipeline acetylene and calcium carbide • COLTON — polyvinyl acetate, alcohols, and other synthetic resins.





Joseph Smindak (right), Plant Engineer, Coffee Instants, Inc., Flushing, N.Y. Left, Michael De Piano, N.Y. representative, Cooper Alloy Corp. Foreground, Cooper Alloy 1" stainless Union Bonnet Globe Valves.

## SMINDAK of COFFEE INSTANTS, INC.

### Tells why he specifies Cooper Alloy for stainless steel valves and fittings

**Q. Mr. Smindak, why does Coffee Instants, one of the nation's leading instant coffee processors, use stainless valves and fittings in processing their product?**

**A.** To protect product purity, a must with us as with most other food processors. Contact with other metals can degrade flavor and aroma; stainless steel does not.

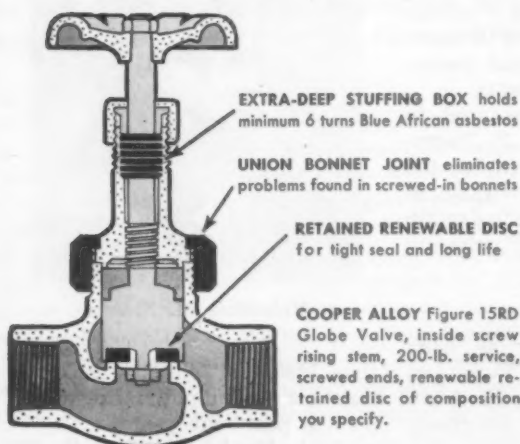
**Q. Why Cooper Alloy?**

**A.** Because of the special Cooper Alloy construction features I find combined in no other brand. On these Cooper Alloy union bonnet globe valves, for example,

we like the ease of operation and the low maintenance; the fact that it removes a threaded joint from product contact; and in particular, the extra-deep square-compression stuffing box which reduces maintenance, gives a tighter seal at stem. Then too, the excellent service we get from Cooper Alloy sales people and distributors.

**Q. You don't find these features in any competing valve?**

**A.** Frankly, not one has them all. That's why, for our stainless valves and fittings, we insist on Cooper Alloy.



**YEARS AHEAD IN DESIGN SUPERIORITY!** No matter what your valve type—globes, gates, angles, checks, or Y's—the Cooper Alloy model's outstanding design features will be important to you. Cooper Alloy, with 35 years of pioneering experience in stainless steel, does not merely adapt existing brass and iron valve patterns; it creates valves designed to be cast in stainless! Check the special design features of valve shown at left.

As the little CA man below is saying: "You Can Tell A Cooper Alloy Valve As Far As You Can See It!" Write today for your copy of our folder "Design Factors In Stainless Steel Valves." The Cooper Alloy distributor near you will be glad to show you the complete line of Cooper Alloy valves and fittings, and their advantages. He can serve you promptly from local stocks.

**COOPER ALLOY**  
Corporation • Hillside, New Jersey  
VALVE & FITTING DIVISION  
THIRTY-FIVE YEARS OF STAINLESS STEEL PIONEERING

## Purchasing People In The News

Two appointments in the purchasing department have been announced by International Minerals & Chemical Corporation,



**Chester F. Teeple**

Chicago, Illinois. **Chester F. Teeple** has been named director of purchasing and **S. Arthur Fournier** has been made purchasing



**S. Arthur Fournier**

agent in charge of central buying. Mr. Teeple joined the company in 1952 as assistant general purchasing agent and became purchasing agent for field buying in 1957. Since April of this year he has been assistant director of purchasing. Mr. Fournier joined the industrial sales staff of the company's Potash Division in 1952. He was promoted to district sales manager in 1957, the position he has held until his recent appointment.

A scholarship providing professional training in the purchasing

field at Illinois Institute of Technology will enable an Elmhurst, Ill. youth to follow in his father's footsteps.

The full-tuition scholarship has been awarded to **George S. Bovis**, the son of Mr. and Mrs. James Bovis, Elmhurst, Illinois. The senior Bovis is head of purchasing at Hupp Aviation Co., Chicago.

The scholarship provides a four-year course of study under Illinois Tech's unique management program leading to a bachelor of science degree in business and economics with a purchasing option, according to Dr. Pierce



**George S. Bovis**

Davis, chairman of the business and economics department.

A pioneering educational program, the management curriculum for the professional education of purchasing executives was developed at Illinois Tech in 1953 in cooperation with the Purchasing Agents Association of Chicago, an affiliate of the National Association of Purchasing Agents.

The award was presented to Mr. Bovis by Richard B. Berry, deputy purchasing agent for the City of Chicago and chairman of the education and scholarship committee of the Purchasing Agents Association.

**Ottis O. Albritton** has been elected chairman of the Purchases and Stores Division of the Association of American Railroads,

Mr. Albritton, who is vice president-purchases and stores of the Illinois Central Railroad, succeeds John S. Fair, Jr., Philadelphia, general purchasing agent of the Pennsylvania Railroad. Named to replace Mr. Albritton as vice chairman was **Edwin A. Bromley** of Montreal, Canada, vice president-purchasing and stores of the Canadian National Railways.

**Alex N. Telischak** has been promoted to general purchasing agent for the Thomas A. Edison Industries, West Orange, New Jersey.



**Alex N. Telischak**

Mr. Telischak succeeds **Valentine M. Meade** who has retired from the company after 46 years of service. Associated with the firm



**Valentine M. Meade**

since 1940, Mr. Telischak has been assistant general purchasing agent for the past four years.

For More Information Write No. 190 on Inquiry Card—Page 32→

PURCHASING

# TIMKEN®

New fast  
service  
on

# BEARINGS



Bearings from our 5 plants arrive at our huge, new Shipping Center every day—and are moved efficiently to and from the storage area on an ultra-modern conveyor system.

## **NEW SYSTEM PUTS YOUR ORDER FOR TIMKEN® BEARINGS ON YOUR DOCK FASTER THAN EVER**

We've developed a revolutionary new system in warehousing, order processing and shipping that gets your Timken® bearings to you faster than ever. The system is based on integration of the latest electronic computer with a new \$3,000,000 shipping center at Bucyrus, Ohio. Here's how it reduces processing time for your order. You get an acknowledgement and shipping date on most orders within 24 hours. It cuts shipment and invoice preparation time. It sends your order of bearings up to 14" O.D. complete from one shipping point, consolidates your orders having the same shipping date. By controlling our production, it helps assure delivery when promised. And it gives you almost unlimited supply of tapered roller bearings from our normal inventory of over 12 million bearing parts. For fastest service, buy "TIMKEN", now more than ever your No. 1 bearing value. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".



### **When you buy Timken® bearings you get...**

1. Quality you can take for granted
2. Service you can't get anywhere else
3. The best-known name in bearings
4. The pace setter in lower bearing costs



can  
you afford  
to gamble  
with quality  
on parts  
like these? . . .



**ACTUAL SIZE**  
(produced in one operation on high-  
speed multi-slide equipment)

Our customer list always  
includes world leaders  
in electrical and  
electronic products.

They depend on us year-in  
and year-out for stamped  
parts to match the  
quality they build into  
their products.

They refuse to gamble! . . .  
Can you afford to do so?



**DETROIT STAMPING  
COMPANY**

Established 1915

408 Midland Ave. • Detroit 3, Mich.  
America's Leading Job Stamping Manufacturer

*Depend on Detroit!*

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## **FOB—"filosofy of buying"**

**A**DS IN Purchasing get the same close attention as the news and methods articles do. And analytical P.A.'s want to know why when they spot something that doesn't seem quite right.

Keen-eyed reader F. J. Martin of the Motor and Control Department of Canadian General Electric demanded an explanation recently of an SKF ad (April 14 issue). It showed an SKF salesman stepping out of his car carrying about 18 boxes of bearings. His faithful St. Bernard stood by with an SKF box hanging from his neck.

"Are those bearing boxes empty" asked Mr. Martin, "or is the man carrying them exceptionally strong. I would guess there are approximately 200 to 250 pounds of bearings in those boxes if they're full."

Our Vice President in Charge of Pressing Problems immediately wrote Mr. Martin. We do not censor ads, he said, unless they

are blatantly immoral, illegal, or against purchasing agents. The man in the picture, he declared, is probably one of those boastful engineers. Or perhaps the box on the St. Bernard carries something that often drives men to greater heights than expected—good Canadian whiskey for example. Mr. Martin's letter and our reply were forwarded to SKF.

R. G. Moore, SKF's advertising manager, has closed out the case with a simple and reasonable explanation: "We plead guilty! The boxes are empty. The photo was designed to convey some idea of the depth of our product line and bring to the attention of purchasing agents the services of our field engineers. As we are aware of the thousands of advertisers who also are directing their messages to the purchasing agent, we have striven to make our efforts stand out by employing a "light" approach in what we feel is an interesting technique."

**I**T'S A SMART vendor who's unhappy when he can't cut costs for purchasing agents. McKinney Manufacturing Company, Pittsburgh hardware makers, has started a regular campaign of "crying the blues" to customers to make it easy for McKinney to save on transportation costs. To every invoice where the total weight of the order does not per-

mit the firm to economically extend a freight allowance attached is the little note shown below. Helping P.A.'s, McKinney will help themselves at the same time. More larger orders mean fewer small ones. This cuts handling costs, since it usually takes just as long to process an order below the freight allowance as it does a larger shipment.



**We're unhappy because...**

This order when shipped was not heavy enough to earn for you customary freight allowances. Freight allowances are based on minimum shipments of 200 pounds. Won't you please take this into consideration when you place your next order.

**McKINNEY MANUFACTURING CO.**



SOME PURCHASING agents are well-adjusted, others maladjusted. Some are neurotic, others non-neurotic (or is there such a thing?). But whatever their state, large numbers of them got enough of a kick out of the cartoon used in our article "Are P.A.'s Neurotic?" (May 26 issue) to ask for a copy of it. There are a few copies suitable for framing left. A glance at it when the pressures begin to mount will give you the inner strength to carry on bravely. Write to Editorial Department, Purchasing Magazine, 205 E. 42nd St., New York 17, N.Y.



"Let's start at the beginning. What made you decide to become a purchasing agent in the first place?"

CHARLEY ADAMS, manager of purchasing service for General Electric is urging purchasing to jump out in front in G.E.'s Operation Upturn. "You can do more than anyone else" he wrote all P.A.'s recently, "in helping your department participate in the company's goal to build sales and jobs in '58. Part of this opportunity can be realized by getting at least an additional 2% cost reduction over your present goal."

Such action, Charley writes, would: clearly demonstrate the type of purchasing job you can do; clearly indicate purchasing's effect on company profits; clearly make a contribution to the professional status of purchasing.

The punch line is good advice for anyone in purchasing: "You'll never know until you try. Ask the next vendor that comes in for a 2% reduction as his part in Operation Upturn. You may be surprised with the results."

AUGUST 4, 1958

# this is it!

## BORROUGHS OF KALAMAZOO STEEL SHOP EQUIPMENT



the **NEWEST** value in  
steel shop equipment



**SEND FOR CATALOG** . . . space here does not permit us to tell you about the features of this outstanding shop equipment value. But in a few words, we want to impress you with the fact that **Borroughs Shop Equipment** is sturdy—functional—good looking—quality built and economically priced. It's a great value. So before you buy any type or make of steel shop equipment, get the **Borroughs** catalog, and get **Borroughs** prices.

**cut your steel shelving costs  
with Borroughs Steel Shelving!**

The "number 1" shelving value because it is the fastest erected shelving on the market, and no other shelving offers more money-saving features. Send for catalog.

## BORROUGHS MANUFACTURING COMPANY OF KALAMAZOO

A SUBSIDIARY OF THE AMERICAN METAL PRODUCTS COMPANY OF DETROIT

3014 NORTH BURDICK ST. **amp** KALAMAZOO, MICHIGAN

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## THREE GUIDES TO GOOD FILING RESULTS

Each of these trademarks on a file is a *guarantee* of satisfaction.

None of them ever appears on a file until our quality control inspectors are satisfied that the file deserves it. It doesn't take much for one of these cold-eyed policemen to turn a file down.

As they guard the reputation of Nicholson, Black Diamond and X.F. Swiss Pattern files, they also protect you. They make sure that these trademarks will live up to their reputation on whatever job you give them to do.

Because we take extra care to make every file

just a little bit better, they do a little more for you. And just a small performance improvement cuts filing time in your shop substantially. And that's where a file proves its real worth . . . and the reason why files with these trademarks are at work in more shops than any other.

You can trust these symbols to guide you to the best filing results. They've been doing just that for file users and buyers for over 90 years.

\* Industrial Distributors provide the finest goods and services in the least possible time. Our products are sold exclusively through them.

◀ "Magicut" All-Purpose Machinist's file.  
One of 6000 quality files bearing the Nicholson File Company trademark.



NICHOLSON FILE COMPANY, PROVIDENCE 1, RHODE ISLAND  
(In Canada: Nicholson File Company of Canada Ltd., Port Hope, Ontario)



# NICHOLSON and BLACK DIAMOND FILES

**A FILE FOR EVERY PURPOSE**

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## Highlights of This Issue

### ✓ The Finger of Suspicion

The newspapers are full once again of charges that businessmen are buying influence in government. And the charges will get thicker and hotter as elections near. Harsh judgments will be made not only about attempts to influence politicians but about business ethics in general. Whether fair or unfair these do help emphasize the individual's moral responsibilities in his day-to-day work. Purchasing agents are in a particularly sensitive position when it comes to business ethics. For a frank statement on purchasing's obligations, see the editorial, "Above Suspicion" on page 55.

### ✓ No Magic to Materials Management

Good materials management isn't a secret science in control of a selected few. Expert managers have been developed right in purchasing, others have come in from outside the department. Examples from different sized companies appear in this issue. One, on page 57, describes how a professional administrator without direct purchasing experience reorganized a large department along materials management lines.

An article on how the purchasing agent of a small company became in fact a materials manager through force of circumstance starts on page 61. You'll also get a good idea of how the concept of purchasing people as materials managers is catching on from our latest Purchasing Opinion Poll. Check the results on page 11 against your own experience.

### ✓ Care and Treatment of Salesmen

Ask a P.A. what the salesman's greatest fault is and there's more than a fifty-fifty chance he'll say "wasting time." But how about the salesman's time? Is it always used intelligently by purchasing agents? Is the salesman always provided with the proper opportunity and environment to tell his story? Now is a good time to review your own practice and attitudes in regard to the sales interview. For a starter see Stuart Heinritz' latest article on page 63.

### ✓ Buying Metal Parts

T.C. DuMond's popular series on buying fabricated metal parts moves into a new area in this issue: forgings. The first of three articles—"What the P.A. Should Know About Drop Forgings"—begins on page 66. Subsequent articles will deal with press forging and machine forging.

## Testimonial:



## Translation:

**\* FISCHER'S  
REPUTATION FOR  
"SPECIALS"  
IS UNIVERSAL!**

We really don't sell brass and aluminum turned nuts in "outer space" . . . but *that's the only territory we can't supply!* Manufacturers of all types of equipment are realizing substantial cost savings with dependable Fischer "special" nuts. Reason: FISCHER NUTS HAVE NO EQUAL FOR PRECISION, PRICE AND DELIVERY. And that applies to standards as well as specials!

If you use brass or aluminum nuts in production quantities, specify the finest . . . specify **FISCHER!**

there's no premium  
for precision  
at

**Fischer**  
SPECIAL MFG. CO.



FISCHER SPECIAL MFG. CO.  
471 Morgan St., Cincinnati 6, Ohio  
Please send your new 20-page  
CATALOG FS-1000 containing com-  
plete specifications on brass and  
aluminum nuts.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

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on Inquiry Card—Page 32

**NOW AVAILABLE IN GRINDING WHEELS  
FROM YOUR REGULAR SUPPLIER!**

# G-E MAN-MADE DIAMONDS

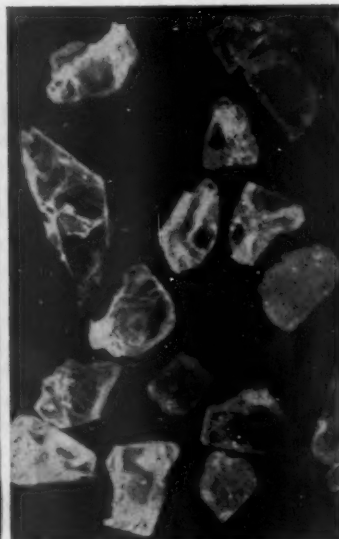
Now proved in production use...  
out-perform natural diamonds in the majority  
of carbide grinding operations!

Now cost-conscious manufacturers have proved what laboratory and field tests had already indicated; in actual production use, resinoid or vitrified-bond wheels with General Electric Man-Made industrial diamonds had at least 15% and up to 75% higher efficiency in most carbide grinding applications than wheels with natural diamonds.

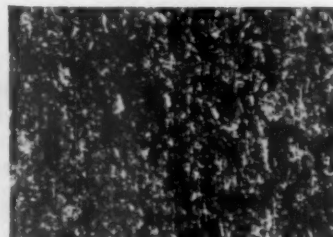
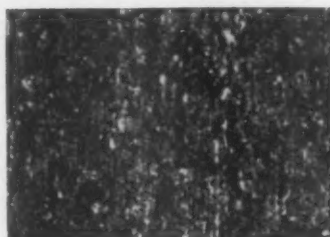
Production experience shows that wheels with G-E Man-Made Diamonds remove more carbide, with less wheel wear and with 20-35% less power consumption. They maintain sharper cutting edges; cut more freely; produce surface finishes that are as good, or better, than those obtained with natural diamonds. The result: A considerable reduction in production costs.

Man-Made Diamonds are better, because, while their chemical properties are the same as those of natural diamonds, their crystal shape is importantly different. Man-Made Diamond crystals are more blocky and rough surfaced. This provides extra support in the bond—makes them stay in the wheel till more completely used up—minimizes the waste of lost diamonds. They are also more friable, so that sharp, new cutting edges are constantly presented throughout the grinding operation.

Your grinding-wheel supplier offers them now. If you're using resinoid or vitrified-bond diamond wheels, specify General Electric Man-Made Diamonds in your next order. Cash in on the superior performance that's already cutting costs for other manufacturers! Metallurgical Products Department, 11143 E. 8 Mile Street, Detroit 32, Michigan.



Man-Made Diamond Crystals (left) are rough and blocky; natural crystals (right) are smooth. General Electric Man-Made Diamonds stay bonded longer, cut more freely, take 20-35% less power.



Close-ups of worn grinding wheel faces show that, after use, a wheel made with General Electric Man-Made Diamonds (left) invariably shows considerably fewer voids where crystals have become dislodged than does a wheel with natural diamonds (right). Man-Made Diamonds tend to remain in the bond longer and continue to do an efficient cutting job until almost completely used up.

*Progress Is Our Most Important Product*

**GENERAL  ELECTRIC**



# Above Suspicion

---

**T**HIS MAY BE an unseasonable editorial, for the topic is usually reserved for discussion during the closing months of the year. However, current events give it a timeliness and force that should not go by default.

A good many purchasing agents are inclined to belittle the emphasis that is directed against the practice of business gifts to customers at the holiday time. They have no feeling of personal guilt or laxity. They discount the arguments of ethics and rationalize the practice on the basis of general usage. Whatever culpability may be involved rests on the side of the donors. For such purchasing agents, recent developments in Washington should be illuminating.

This is no political forum, and we express no judgment on what may have happened in the Adams case, the legality of the actions, or the motives that may or may not have been present. That is entirely beside the point.

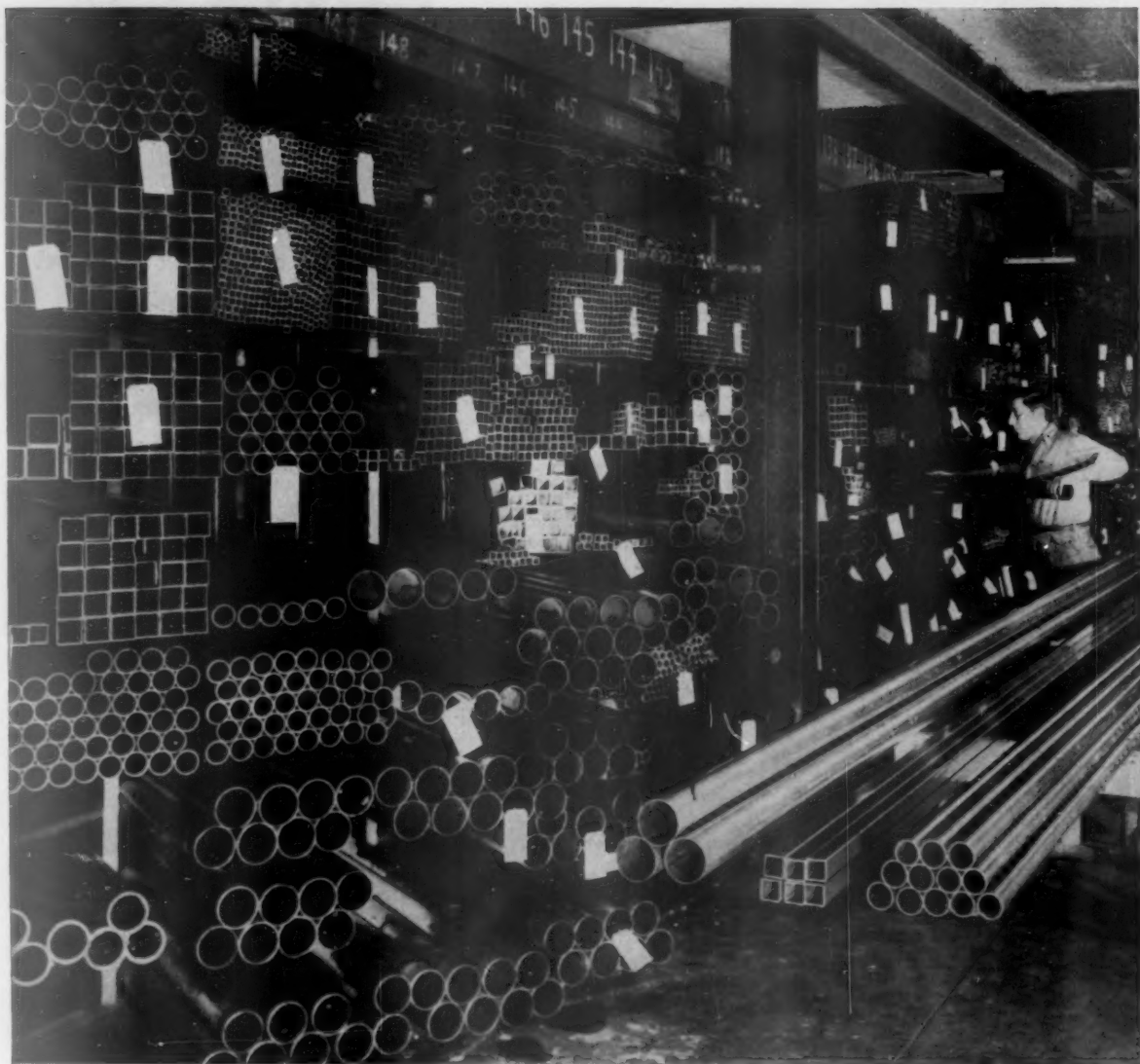
The plain fact of the situation is that rank carries a special obligation. The man who is in a position to confer favors must keep himself above suspicion of personal gain, for suspicion there surely will be. His own reputation is perhaps his own affair, and he may absolve himself at the court of his own conscience. Nevertheless, his act reflects untold harm upon his position and upon the company or administration he represents. No amount of exoneration can allay the suspicion and undo that harm.

In business dealings, the purchasing agent not only represents his company; he is the company. It is a part of his responsibility to enhance and maintain its good name and its reputation for integrity. The company is judged, for better or worse, rightly or wrongly, by his every act. He cannot plead that it is a matter of degree. Business gifts have no place in conscientious purchasing.

This is addressed to purchasing agents, and perhaps that should be enough. In the great majority of cases, it is unnecessary.

Perhaps it should be addressed to management. A strict policy against the acceptance of gifts could do much to curb the practice. Even better, a policy against the giving of business gifts could eliminate the problem altogether. For this is one case where giving is no more blessed than receiving. Reputation is at stake on both sides.

*Stuart F. Henrity*



## The type of tubing you need is here

It pays to analyze your tubing requirements with a Ryerson tubing specialist. He is well qualified to help you select the right tubing for your purpose from Ryerson's diversified stocks.

The Ryerson specialist knows tubing—knows what will work best and why. In many cases, he can

recommend a type that will do a better job for you—perhaps a newer type that will save you money, either in first cost or in the cost of using it.

Ryerson carries the nation's largest stocks of steel tubing—all of

certified quality—and uses the finest modern equipment to cut to your exact specifications. And Ryerson delivers fast—one tube or a thousand.

The Ryerson tubing specialist is as close as your telephone. Give him a call today.



# RYERSON STEEL®

Member of the  Steel Family

*Tubing in stock: Seamless and welded mechanical tubing; fluid line, pump cylinder and structural tubing; stainless pipe and tubing; PVC pipe and fittings. Also, aluminum tubing in many plants.*

JOSEPH T. RYERSON & SON, INC. PLANTS AT: NEW YORK • BOSTON • WALLINGFORD, CONN. • PHILADELPHIA • CHARLOTTE • CINCINNATI • CLEVELAND • DETROIT • PITTSBURGH • BUFFALO • INDIANAPOLIS • CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO • SPOKANE • SEATTLE

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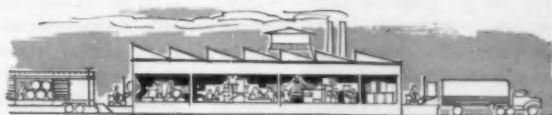
Director of Purchases Traversi has slashed costs of many items like this razor blade dispenser top by introducing new vendors with specialized know-how.

# A Professional Manager Takes Over Purchasing

*As a result of changes in organization, procedures improvement, planned buying techniques and cost reduction purchasing is playing a new, dynamic role in the Gillette Safety Razor Co.*



By Dean S. Ammer



**F**RANK TRAVERSI is a very able and tough newcomer both to purchasing and industry. Until a few years ago, he was a career officer in the Army Military Police. Despite the lack of purchasing experience, his background is well suited for his present post as director of purchases of Gillette Safety Razor Co. in Boston. The Army experience provides the administrative savvy that's so essential in a big purchasing operation. In addition, Traversi's academic qualifications are outstanding. He's both a lawyer and a graduate of the Harvard Business School.

Traversi joined Gillette in June, 1955 to work on cost reduction for

the vice president-manufacturing. He evaluated operations in various departments looking for conditions that could be improved. One of his assignments was the purchasing department. Traversi spent four months studying purchasing and made a long, detailed report. One recommendation was to create a new job—assistant to the director of purchases. Traversi got the job. A few months later in October, 1956, he was promoted to director of purchases.

At this point, with management's blessing, Traversi really proceeded to go to town. A plan of reorganization of the department was developed and approved.

●All procedures and forms got

close scrutiny. Many were changed and some were eliminated entirely.

Supply sources got a thorough going-over. Those doing an outstanding job for Gillette got more business; those who were more complacent had to scramble to hold their own.

●New buying techniques were successfully introduced.

●A new aggressive, enthusiastic spirit was injected into the Gillette purchasing organization.

Because of their importance the four key phases of Traversi's program — organization, procedures improvement, planned buying, and cost reduction—are each treated separately in this article.

## **Buying Teams Organized for Results**

TWO YEARS ago, there were 25 people in Gillette's purchasing department. Now there are just 18. But the purchasing budget is slightly higher now than it was then. "What we've done," says Traversi, "is trim the size of the department and bring salaries of the remaining people up to levels justified by their responsibility."

Formerly, everyone in the Gillette purchasing organization was a specialist. All the buyers did was buy. Everything else was handled by a central clerical

group. There was a maximum of specialization—one girl did nothing but check invoices, another filed, etc. When a buyer wanted information about an order, he located the appropriate specialist in the clerical group. This made for a lot of overtime and also resulted in divided responsibility for any one order.

Now the buyer has only himself to blame if something goes wrong. For with the new organization, each buyer is responsible for the complete purchasing cycle. He receives the requisition, negotiates with suppliers, places the order, holds the order for follow-up and approves the invoice when the material is received. But doesn't all this paperwork turn buyers into clerks? Not in the least, according to Traversi. For now each buyer has a secretary reporting directly to him. So, if anything, there's less detail work for the buyers than before. And even when a buyer is out of the office, there's always some one on hand who's completely familiar with every order he has outstanding.

One of the first problems Tra-

versi considered in his reorganization was training. His goal was an organization with depth. To back him up as No. 2 man, he brought in Paul Sauerwein as executive assistant. Sauerwein had formerly been on the purchasing staff of American Cyanamid. He was able to contribute a lot of specialized know-how on the buying of packaging. Potential openings at buyer level weren't neglected by Traversi either. He now has a young college graduate in an informal training program. Traversi has put the trainee to work studying all clerical procedures. The trainee then makes a report on recommended improvements.

Later, after he gets to know procedures in detail, the trainee gets assignments working with particular buyers. He then learns negotiation, vendor relations, and something about the important commodities. The end product of Traversi's program is a man able to step into any buying spot if and when an opening develops. There won't be any frantic scrambling to find a qualified man.

## **Purchasing Procedures Streamlined**

"We analyzed each administrative operation in the department. When it served no worthwhile purpose, we got rid of it," Traversi declares. This approach of making each procedure and form justify itself brought results. So far there have been about a dozen changes. Forms have been both revised and eliminated; special procedures have been devised to cut costs; other procedures have been changed drastically. Among the changes are these:

### **Three Copies of the Order**

**Eliminated.** Gillette used to make nine copies of each purchase order; now it makes but six. The reduction was the direct result of a study designed to make each copy justify itself. One copy was made for microfilming. Now this copy is eliminated; someone else's copy is sent through microfilming.

Purchasing used to send separate copies of the order to stores and receiving. But these functions come under the same department head. So again, one copy is made to do two jobs. A third copy was eliminated right in purchasing. There used to be both a purchasing work and a purchasing reference copy. But no one ever referred to the reference copy, so it was eliminated.

**Records Disposal Cuts File Needs.** "If nothing is done about them, records just keep accumulating," says Traversi. At Gillette, purchasing used to add about four new filing cabinets to take

care of the additional records that accumulated.

Now there's no need for new cabinets. New material being filed replaces older material that is disposed of. Important orders are still kept seven years until the statute of limitations expires. But, of course, most orders are routine. It's pointless to keep them that long. So now they're discarded after two years. Classification system permits clerks to handle them in routine fashion. "A" orders are kept seven years; "B" orders two years.

**Steel Rejection Report Eliminated.** Sometimes through tradition or just because it's trying to do a good job, purchasing takes on assignments that should actually be given to another department. This was the case at Gillette. Purchasing used to make up a report on steel rejections from data it got from the cost department. The report went back to



cost for checking before it was approved by the director of purchases. This report required one girl's full time. Since her information came from the cost department and the report was checked by cost, the job was obviously being done in the wrong department. Now the cost department does it. Duplication of work is eliminated and there's need for one less girl in purchasing.

**Forms Redesigned to Cut Paperwork.** Why fill out three or four forms when one will do the job just as well? A good way to make a single form do the job of several is to list more than one item on it. Traversi applied this principle to both the purchase order and stores call form. There used to be room for just one item on the latter; now, with the re-

designed form there's room for five items.

Formerly there was no provision for an additional page to the purchase order. When the first page got filled up, you issued a new order. Now there's a second page. Result: it's possible to list eight more items on an order. Both of these simple changes—on the purchase order and the stores form—are by no means revolutionary. But they each cut paperwork at no cost.

A third change in forms is scheduled as soon as the current supply of purchase orders is used. It's also very simple. A 3x5 card for expediting will be inserted into the purchase order set. This will eliminate copying such basic information on the order as vendor name, order number, etc.

**Unnecessary Procedures Eliminated.** Traversi's investigation uncovered work that wasn't needed at all. A girl used to transcribe all basic information from the invoice to the work copy of the purchase order. If the order was received complete, this operation was completely pointless. Now the posting is made only if there's a partial shipment and order is still open after the first invoice is checked against it.

Another wasted operation was the "no-charge" purchase order. If manufacturing sends something outside for repairs on a no-charge basis, why should purchasing bother to type up an order? No money is being spent. Now purchase orders are issued for repairs only when there are charges. A lot of paperwork is eliminated.

## Quarter-Million in Cost Reductions

"We used to act on requisitions as soon as we received them," Traversi recalls. "Then we got wise; it occurred to us that we could both cut paperwork and purchase costs if we started planning our purchases of repeat items."

First step in getting program of planned purchases going was to get agreement of using departments. Purchasing had to convince them that it was mutually advantageous to plan and order requirements on a monthly basis. It started with the electrical department. Formerly, switches, bulbs, sockets, etc. were bought almost daily as the need arose. By pre-planning purchases, purchasing convinced the electrical department that it could:

1. Buy on a monthly basis with less paperwork for both purchasing and the requisitioner.

2. Buy in larger quantities and thereby be in a better position to negotiate lower prices.

The electrical department bought purchasing's plan. So now on the 10th of each month, the electrical department sends in a requisition for its total requirements for the month. Purchasing issues an order by the 10th and the vendor delivers by the 15th. Everything is bought competitively on a "package" basis for a single supplier.

Planned buying was so successful on electrical items that purchasing is now using it for plumb-

ing, office, machine shop and maintenance supplies. The result of spreading the program has been an evening-out of purchasing's work load. Note, in Table I, how it's possible to spread the work by staggering the dates on which requisitioners give purchasing their monthly requirements. This boosts efficiency not only in purchasing but also in receiving, accounting, etc.

Traversi now uses blanket orders whenever possible for supplies. "Result of our over-all program of planned purchasing has been to reduce the volume of purchase orders issued by more than 30%," he says with pardonable pride.

Table I  
Schedule of Planned Purchases  
(By day of the month)

Type of Item	Requisition In	Order Issued	Delivery
Plumbing	1	5	10
Office	5	10	15
Electrical	10	15	20
Machine Shop	15	20	25
Maintenance	20	25	30

## **Planned Buying Saves in Two Ways**

Gillette purchasing doesn't hesitate to take advantage of all legitimate competition it can find. "However, we're careful not to try to squeeze too much out of a price," Traversi declares. He points out that it's not smart buying to get a cost reduction unless there's technological justification for it.

A case in point is the "tuck" used to package razor blades. Gillette got a substantial cost reduction by going to a source equipped to print them on rotogravure presses. The original source was inherently higher since it was only equipped with letter presses. A similar approach is being followed on the metal razor blade dispenser tops. Traversi is working with a source that can run pre-lithographed strip steel through a progressive die. Currently they're being stamped individually from sheet steel blanks.

While they're great believers in competition and no supplier finds them "soft", Gillette buyers also bend over backwards to be fair. "There are no arbitrary stands with suppliers on quality," Traversi points out. "Nothing goes back until there's general agreement as to where responsibility for poor quality lies."

Traversi's department has proved in the past year that it's possible to cut costs and have plenty of competition without sacrificing quality standards. "Quality today is better than ever," Traversi observes, "while costs are lower by \$250,000 a year." This year Traversi hopes purchasing can bring costs down another \$250,000 for a cumulative saving of \$500,000. His buyers are making progress. Each makes out regular reports of cost savings. Some-

times they're able to save money in unusual ways. One buyer couldn't get a supplier to cut prices on a certain supply item; apparently the manufacturer maintained resale prices. This didn't discourage the buyer. He got the supplier to revise his dis-

count terms. Instead of 2/10, net 30, Gillette gets 7/10, net 30. So the discounted price is now 5% lower than it was before. "We're willing to use every legitimate and ethical technique we can think of to save money for Gillette," Traversi declares.

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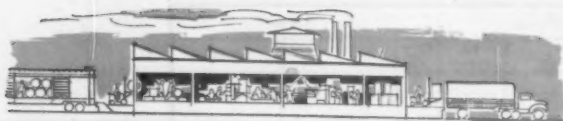
### **Keep Requisitioners Informed**

If requisitioners don't know how long it takes to get material, no one can blame them if they expect same-day service on every order. That's why they should be kept posted by purchasing. Since lead times change (e. g. right now they're probably shorter for most materials than they've been at any time since before World War II), purchasing should revise its lead time list occasionally. At Gillette, Director of Purchases Traversi periodically puts out a long list of lead times on every commodity that's purchased on a recurring basis.

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Traversi's right-hand man is Executive Assistant Paul Sauerwein who came to Gillette with wide experience in the purchase of packaging materials.



Materials Management in American Industry

## Managing Materials in a Small Plant

*An integrated approach to materials management is a must at the fast-growing Heath Co. The company does little manufacturing so purchasing's job is particularly critical.*



Heath Company's Bob Swander: His title is purchasing agent but he actually functions as materials manager.

**B**OB SWANDER'S title is purchasing agent. But he actually functions as materials manager of The Heath Co. of St. Joseph, Michigan. Heath's business requires an integrated approach to materials management. The company makes do-it-yourself kits of hi-fi and other electronic equipment. Practically all the components except certain stampings inventory requirements demand close coordination of the procurement and inventory control functions.

Swander's department has 13 people including 4 buyers. It controls inventory, makes purchases, follows-up for delivery, and approves all invoices. It buys about 4100 component parts, all materials for shop-made parts, and, of course, all non-production items.

"We can't see how purchasing

can operate without having the inventory control function," Swander declares. "We do our best to keep inventory as low as possible without losing sales. This is only possible if the person controlling inventory is able to take account of constantly changing lead times," he explains.

Inventory control at Heath is by no means complicated. There are master decks of IBM cards for the bills of materials of the 100-odd different kits Heath makes. The cards are tabulated monthly from a five-months' running sales forecast. Requirements are posted to the "Forecast Requirements" card shown in this article. They're compared with "on-hand" and "on-order" data. Buys are made as needed.

Swander has one device that helps him keep a daily check on

inventory. He gets a tabulation of the amount of invoices OK'd each day. This shows how much his inventory is increasing. In addition he gets an estimate of the cost of the components in the kits that are shipped. This tells him how much inventory he's losing. The difference is a remarkably accurate estimate of the net change in inventory. "When inventory starts to move fast in either direction, we look into all outstanding commitments and either cut back or get ready to expedite," Swander declares.

### **Purchasing—Engineering Teamwork**

In a fairly small organization, it's imperative that vendors' know-how be utilized to the fullest extent. That's why there's such close teamwork between







# The P.A. And the Interview

By Stuart F. Heinritz

*The time spent in an interview is not the real measure of its significance and results. The essence of efficiency and conservation lies in making the best use of interviewing time. Here are some tips you can use in making each interview profitable.*

**W**HENEVER the discussion of purchasing comes to the subject of interviews with salesmen, two points are immediately and almost automatically raised. One of these is the controversial question of whether the buyer is ever justified in restricting sales calls to certain hours of the day. The other is the chronic complaint about the waste of salesmen's time while waiting in the reception room. These two problems do not cover the entire subject of interviews by any means. However, they do provide a good starting point, for they represent a practical issue that must be resolved before we can go on with the more important business of the interview itself.

## **The Question of Time**

The principal point of issue in both arguments is that arbitrary calling hours and excessive delays in seeing callers curtail the salesman's productive time—the actual person-to-person contacts that are the very essence of salesmanship. The first step in selling is to see your man. That's a valid contention. Purchasing people are well aware of the situation. By and large, they are sympathetic to the salesman's point of view. For the sake of good public relations, if for no other reason, they would be happy to say, "My time is your time. Come whenever you wish, when it best suits you, and come right in when you get here."

Many purchasing agents are genuinely concerned for a more selfish reason. One of them recently told me, "Whenever I see salesmen sitting out there waiting their turn, I think of our own sales people who may be doing the same thing in other offices, and what it's costing our company."

Unfortunately, however, that's only one side of the story. The purchasing agent has a problem of productive time, too. There are just so many hours in the day, and no one has yet developed a successful technique for doing more than one thing, or seeing more than one caller at a time.

Interviewing salesmen is a part of the buyer's job and, a very important part. But it is still only one part of the whole. It may take up as much as half of his working time, on some days. The rest of his hours (and frequently extra time after hours) are fully occupied with a variety of other essential activities—administrative, analytical, research, conference correspondence, follow-up, and the normal flow of paperwork that is incidental to the purchasing process. And that enumeration should also include the time necessary to digest the meat of the interviews, a matter that is just as vital to the effectiveness of these meetings as the time spent in the actual contact.

Some of these activities are routine. But a considerable part is the sort of thing that crops up without advance warning and demands immediate handling; it simply can't be put off until another day, and perhaps not another hour. Almost without exception it is the sort of thing that requires concentrated, uninterrupted attention—just as much, for example, as the undivided attention that the salesman rightfully expects for his sales presentation. The purchasing agent who hopes to do an efficient job, or even to keep up with the press of current duties, cannot lay himself open to haphazard interruption at the convenience or persistence of every salesman who happens to come along and knock at his door.

Faced with this dilemma, he generally does

the next best thing. He sets aside a specific portion of time to be devoted to the interviewing phase of his job. Within this allotted time he does his best to see callers promptly and to give them his full attention. This may not always work out to be the ideal answer to the problem, but it is a practical one.

### **Mutual Consideration**

Stripped thus to its stark essentials, the question is whether the salesman shall be permitted to control the disposition of the buyer's time, or whether the buyer shall be permitted to control the salesman's time. Obviously, that's a situation that calls for mutual consideration if either party is to be satisfied. The first step in that direction is communication, for mutual understanding. If calling hours are to be limited, be sure that the regulation is clear, that the limitation is as reasonable as possible under the circumstances, and that the reasons for the policy are known.

For the most part, today's specified calling hours are reasonable and the policy is adopted for good reason. The era of "Salesmen interviewed on Tuesdays and Thursdays from 2 to 3:30" is happily obsolete in modern industrial purchasing. And the buyers who deliberately and arbitrarily keep salesmen needlessly waiting are few and far between—and inexcusable. But the salesman who still resents any such regulation, who protests that failure to get an immediate hearing at any hour of the day disrupts his schedule, needs a better understanding of the purchasing job and must be made to realize that this is a situation that works both ways. Surely the buyer is not unreasonable in asking for a free hour at the beginning of the day to get through the morning mail, appraise the day's problems, plan his work and set his plans in motion, and some free time at the day's end to clear his desk, catch the evening mail, and perhaps arrange for an overnight delivery of some urgent requirement. And there may be other appointments, such as regularly scheduled staff and executive meetings, that make it impossible to see callers at these times. Restrictions of this sort are not only not unreasonable; they are unavoidable.

The old argument that the salesman's time is more valuable than the buyer's, based on comparative earning power, is scarcely deserving of serious mention. In the first place, the premise, which may have had some merit a generation ago, no longer holds true. More importantly, it has nothing whatever to do with the issue, which is a matter of function. Even the hot-shot salesman, earning the biggest commissions, owes his position not to breaking the rules and "getting in", but rather to his ability to make the best use of his time in the interview.

### **Observing the Rules**

Consideration on the salesman's side implies a willingness to abide by the regulations so far as possible without expecting special favors in

waiving the rule for his benefit, and a sincere effort to conserve the buyer's time by avoiding over-frequent, trivial, and needlessly prolonged calls that merely aggravate the situation for others of his calling. There is an element of self-interest in this too, for an interview forced on a reluctant and perhaps resentful buyer who has his mind on some other problem that he should properly be attending to at the time, is scarcely the most favorable situation for a successful sales presentation. When the restriction causes real hardship, when the subject for discussion is especially urgent or important, or when an extended time is required for a complete presentation, the considerate course—and the most productive—is to set up a special appointment.

On the buyer's side, consideration demands a certain amount of flexibility in policy to accommodate the out-of-town salesman who has a limited amount of time at his disposal and has to be in the next city on the following morning, or the salesman making his first call on the company unaware of the prescribed calling hours, or the one who has some other good reason to ask for an exception, so long as such exceptions do not become the rule. Consideration demands that if any considerable waiting time is unavoidable, the salesman shall be notified so that he can make better use of his time, and a definite appointment is made for a later call.

Observance of stated calling hours is most readily controlled in the case of local salesmen who are regularly in touch with the purchasing office. In some instances it is possible to come to an agreement on the frequency of calls, which should be sufficient to assure proper service and to maintain the salesman's status with his account, but not overburdened with routine visits mistakenly referred to as "courtesy calls" and serving no useful purpose beyond maintaining the contact. Some purchasing agents located in outlying sections of a city request local salesmen to make a phone call before coming out in person, to see whether the buyer will be available. Both of these methods save the salesman's time by avoiding needless trips, waiting time, and fruitless interviews. However, salesmen are justifiably suspicious of the "Don't call me; I'll call you" technique. It's too easy a way for the run-around, too loaded with the risk of losing business by default. It is acceptable only to the extent that the buyer really means what he says and

"The too short, too hurried interview is as much open to criticism, from the buying standpoint, as the overly protracted one..."

conscientiously follows through when a matter of interest does arise.

Time wasted by salesmen kept waiting in the reception room is an occupational hazard of salesmanship. Sometimes the purchasing agent is at fault, and there are some things he can do to mitigate the situation. But primarily the problem arises from the competition of other salesmen for the buyer's time, and it is aggravated in periods of intensive selling effort when productive selling time is more important than ever. Under these circumstances, the purchasing agent can only do his best, giving full priority to interviews during interviewing hours and handling them as expeditiously as possible.

One thing every purchasing agent can do is to keep himself continuously informed on the situation. Callers should be announced to the appropriate buyer immediately on arrival and should be advised as to the probable length of time before an interview can be granted. Then the salesman can decide for himself whether to wait or to call back later. In many purchasing offices salesmen are invited to ask the receptionist to re-announce them if they are kept waiting more than a reasonable time; there is always the chance of the human error of oversight if the buyer is otherwise engaged, and sometimes the second call is an effective and welcome lever for expediting the dealings with a caller who is overstaying the purpose of his visit and monopolizing the buyer's time at the expense of others.

If waiting time is the scourge of the salesman, it is equally bad public relations for the buyer and his company. Many companies that maintain a reception room record include a notation of the salesman's time of arrival and waiting time before the interview. Purchasing agents do well to study that record, for it is more than a statistic. It may show that they are not doing as well as they thought, or that their best is not good enough. If the situation is chronic, it may indicate that the purchasing department is understaffed to do a proper job. If that is the case, it will probably be reflected also in other phases of the purchasing work, and corrective measures will be taken. But in times like the present, despite the pressures from an overcrowded reception room, there would probably be little justification in asking for additional interviewing help while other phases of purchasing are being curtailed. The answer would probably be found in more selective and intensive use of the available interviewing time.

#### **How Long an Interview**

All of this revolves around the matter of conserving time, for buyer and salesman alike, and we haven't even come to the interview itself. Equally as important as limited hours and salesmen's waiting time—probably more important, because it has to do with that precious productive



NO. 12 IN A SERIES

time that is of concern to both parties—is the conservation of actual interviewing time. In the interest of the buyer, the salesman across the desk, and the salesmen awaiting their turn, how long should a sales interview last?

There's only one sensible answer to that question. The interview should be just as long as is necessary to complete its useful business purpose. The too short, too hurried interview is as much open to criticism, from the buying standpoint, as the overly protracted one. Both represent a waste of time, in the light of what should be accomplished.

The interview could quite properly be a matter of only a few minutes if the salesman is making a routine "courtesy call" or if the subject of his proposal is obviously not pertinent to the company's needs or is untimely at the moment. In any of these cases, there is no useful business purpose to be served. The first instance calls only for the amenities of a courteous reception. The latter cases are best handled by a clear statement of the company's position, which will really save the hopeful salesman's time by saving him from following a fruitless quest.

On the other hand, the interview could properly be a matter of an hour or more if it involves a demonstration of some promising new product or material, or the investigation of a new supply source, or if it concerns the negotiation of prices, terms, deliveries or warranties on a pending order, or adjustment of some difficulties encountered on a previous shipment.

Opinions will differ as to the importance of an interview and the time that should be spent on it. But in the final analysis, the purchasing agent has to be the final arbiter as to the pertinence of the proposal and how much time is justified in considering it. And he has to make that decision on the basis of his company's interests and his own responsibilities in furthering those interests.

Finally, the time spent in an interview is not the real measure of its significance and results. The essence of efficiency and conservation lies in making the best use of interviewing time—the technique of negotiation, which is a part of good buymanship as well as of salesmanship. But that is another matter, to be considered in another article.





(All photos courtesy Drop Forging Association)

Variety in both size and shape is available in drop forged parts. The smallest forging shown weighs only five ounces; the largest over 880 pounds.

**T**HUS FAR in this series we have considered the casting processes, all of which have in common the fact that the metals used start the transition to their final shapes while in the molten state. Now we take up a group of processes in which the metals are heated just short of their melting points and are then hammered into shape. These are the forging processes. First among the forging methods is drop forging, an art which stems from methods used to pound out ancient swords and in more recent history to make such common objects as horse shoes and relatively crude farm implements.

Variations of the forging method, to be discussed in subsequent articles, include press forging and machine forging, or upsetting. In forging, metals are heated to a condition known as the plastic state where the compressive force of a hammer causes the heated metal to assume the shapes of dies into which they are forced.

Forging provides the means of achieving the highest strength in any metal. The forging process develops a fibrous metal structure not provided by other methods and adds toughness to the metal. In addition, forging refines the metal structure, welds together any voids which might have been in the raw material and breaks up any harmful segregation and inclusions.

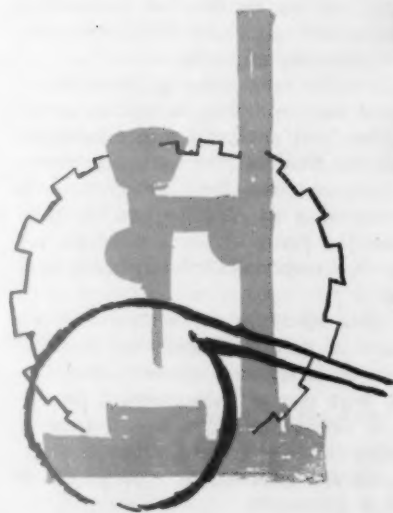
#### The Process

Drop forgings are used for both delicate and heavy duty applications ranging from surgical instruments to truck axles and including such products as hand tools, crankshafts, gear blanks, pistons, cylinder heads, rock drills, marine fittings, connecting rods, chains, hardware and an infinite variety of other parts.

## What the P.A. Should Know About

# Drop Forgings

By T. C. DuMond





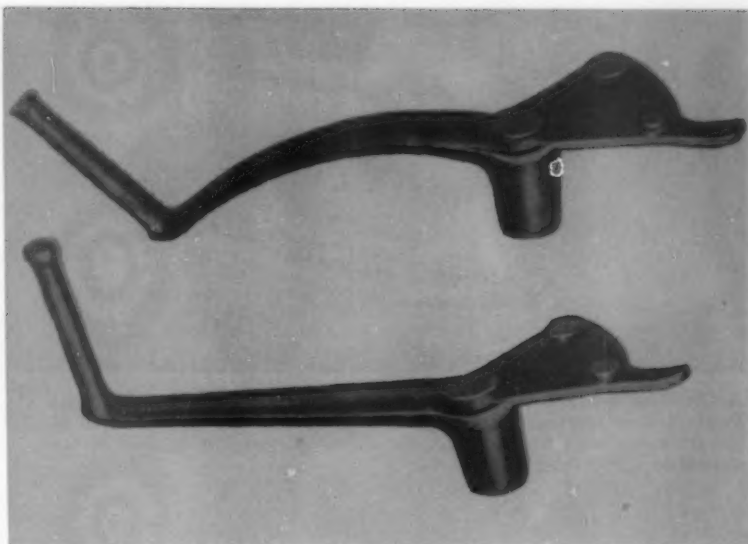
After the flash has been removed from the forging (top) the only remaining operations are straightening of the shank and drilling of holes for assembly.

Drop forgings are made on either of two types of hammers—steam or board. In either instance one portion of the die which shapes the part is attached to the end of the ram which transmits the force. The mating half of the die is fastened to the anvil of the forge.

In board hammers the hammer is raised to the top of the machine and then permitted to drop to transmit its force to the metal shape being formed. In steam hammers the ram is raised by steam pressure and is capable of rapid, repetitive blows, in contrast to the single blow of a board hammer.

When production is about to start, metal blanks of appropriate size are heated to the top of their plastic range and placed in the die. Forging then begins and blows of the ram, transmitted through the top die half, cause metal to flow and fill voids in the die and thus assume the desired shape. Simple shapes can be made in simple dies and a few blows of the hammer. Complex shapes require progressive dies or even a series of dies. In such cases, the blank is given a partial shaping in one die contour and then moved to another contour which comes closer to providing the final shape. If the piece being forged cools to below the plastic range before forging is completed, it must be reheated before forging can be continued. The forging range of metals varies. Some can be formed over a temperature range as high as 200 or 300 F, the range of others is much less.

When severe or unusual shapes are involved it is likely that some preliminary steps are used to reduce the forging necessary. Early steps include such operations as bending or blocking to strategically place metal where it will be



needed. Some nonferrous metals can be preshaped by extruding blanks which approximate the final shape.

There is always more metal in the blank than is necessary to create the desired shape. The surplus metal is forced out at the die parting line and is known as flash. Surplus metal varies from a small proportion of the total weight to over half the total weight of the blank, depending upon size and complexity of the shape. Flash is removed in a secondary operation on a press. Forgings usually require cleaning after forming to remove heat scale and processing dirt. Cleaning can be done by sand blasting, pickling or tumbling.

It is likely that other secondary operations might be used on forgings. These include punching, sizing, straightening and coining. The latter operation is frequently involved to attain added precision on forged parts. Coining is done in precision dies and only minute quantities of metal are moved.

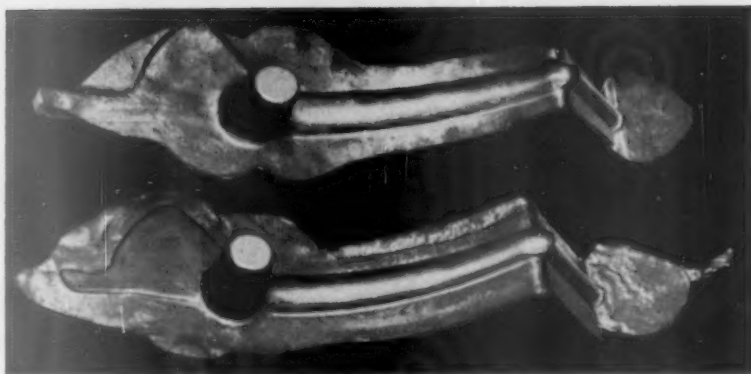
Some forgings must be carefully cooled after forming to avoid damaging the metal metallurgically. Some also require heat treatment to relieve stresses in the metal and achieve maximum strength and quality.

#### Cost Factors

Drop forgings fall into the medium cost range. The major cost items in their manufacture

are the heavy die costs and the finishing and machining expenses. Chief of the cost factors in forgings are:

1. Die costs for large or complex parts can cost up to several thousand dollars. Dies for simple, small parts might be as low as \$150. The purchaser buys original dies, the forger maintains them.
2. Large quantities of parts are usually needed to amortize die costs. The usual range is from 10,000 to upwards of 100,000 pieces. Of course there are exceptions as in the case of aircraft forgings where quantities are considerably lower, because a premium can be paid to obtain maximum strength with minimum weight.
3. Labor costs are in the moderate range. Skilled help is required for the actual forging operations. Less skilled labor can handle the cleaning and finishing.
4. Finishing costs are also in the moderate range. Usually finishing costs are higher on iron and steel forgings because of the heat scale which develops. Little hand cleaning is necessary.
5. Scrap losses are higher than for castings. Scale is almost valueless. Other scrap generated in trimming and machining has some recovery value, although it is not high.



A blocking operation shapes the forging and forms the right angle bend. A final forging operation produces the exact shape and size in the finishing impression of the die. Flash around the forging is removed in a trimming press.

6. Materials costs range from inexpensive irons to high cost super alloys. The choice of material usually depends upon the service requirements of the part.

#### Materials

An extensive list of materials can be shaped by drop forging. Included are plain and wrought irons, carbon steels, tool steels, stainless irons and steels, nickel and high nickel alloys, super alloys, brasses, bronzes, aluminum, magnesium and titanium alloys.

For forging, irons and steels are heated to between 1700 and 2500 F. The higher temperatures are required for alloy steels. The temperature range for forging coppers, brasses and bronzes is between 1100 and 1700 F. Magnesium and aluminum require forging temperatures between 650 and 900 F.

As has been indicated, forgings provide the highest strengths in any given alloy. Strength is attained by the kneading action of the forging hammer which develops a sound structure, free of voids and porosity. The fibrous structure also adds toughness to forged structures.

#### Advantages and Limitations

The advantages and limitations of drop forgings are closely balanced. On the plus side we find:

1. Small parts can be made as drop forgings and provided with much greater strength

than could be attained with castings.

2. Drop forgings are noted for their consistent quality from part to part. Consistency is gained through the manner in which the metal is worked.
3. The same kneading action of the drop forge that provides high strength also eliminates potential internal defects.
4. Most drop forgings can be formed to relatively close dimensional and shape requirements, thus leaving only small quantities of metal to be removed by machining.
5. Generally, costs of drop forgings are comparable to high quality castings of the same compositions.

Most frequently encountered limitations of drop forgings are:

1. The degree of intricacy is relatively restricted—much more so than many cast forms.
2. Costs for dies are higher than molds and patterns for comparable cast shapes.
3. Closed die forgings are somewhat restricted in size. High costs result from the heavier equipment and dies required.
4. Hot working reduces the power requirements for forming, but increases the problems of holding tolerances and is likely to result in scaling which, in turn, requires cleaning.

5. It is impracticable to provide holes in two planes in drop forgings. Parts of this type can not be removed from ordinary dies.
6. Production is limited. Steam hammers, the faster of the two types, are capable of approximately 300 blows per minute. Because most forgings require many hammer blows, production rates vary from 40 to 120 pieces per hour.

#### Sizes and Tolerances

Drop forgings range in size from tiny pieces weighing less than an ounce to those weighing hundreds of pounds. Small parts are most economically produced on board hammers. Larger parts are more readily formed on steam hammers capable of exerting greater pressures and delivering rapid, repetitive blows.

Drop forging is not noted as a precision process, although there are several degrees of precision available from various producers. As with other forming methods, costs mount rapidly in seeking dimensional tolerances closer than normal.

Usual tolerances on smaller parts are in the nature of plus or minus 0.010 to 0.030 inch. As size increases tolerances become more liberal. Coining on the small and moderate sizes and shapes can reduce tolerances to plus or minus 0.004 inch, or less.

Many parts require machining allowances of from 1/32 to 1/4 inch, depending upon the size of the part and the material from which it is made.

#### When to Choose

There is one prime factor which should aid one in determining whether to use a forging. When it is essential that a part have the highest possible strength then drop forgings should be considered. Today when there are many instances where a premium can be paid to achieve the greatest strength-to-weight ratios in parts, drop forgings should be chosen even though costs might be somewhat higher than similar shapes made by other methods.



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IRON PRODUCTS "Swede" pig iron	A.W. CUT NAILS Standard & Hardened
STEEL PRODUCTS Plates (sheared) A.W. Dynalloy (high strength steel) Hot rolled sheets Hot rolled strip Cold rolled sheets Cold rolled strip	MINE PRODUCTS Iron ore concentrates Iron powder Crushed stone Sand
ROLLED STEEL FLOOR PLATE A.W. ALGRIP abrasive	COKE Foundry, industrial & metallurgical
A.W. SUPER- DIAMOND pattern	PENCO METAL PRODUCTS DIVISION Steel cabinets, lockers & shelving
COAL CHEMICALS	





## Products and Ideas

**T**HE COSTLIEST, most time consuming problem of railway mail handling is the sorting of parcel post mail which is too large to handle in mail sacks. This problem has been resolved for the Pennsylvania Railroad's Philadelphia mail terminal. An electronically controlled mail handling system gets the credit.

This system moves "out size" mail through the Philadelphia terminal by as much as eight to twelve hours faster. Five men operate the new system. The old system required 15.

In operation, the sorting system separates out size mail into 39 lots with only one manual operation. Two men are required to load mail onto a 22-foot powered conveyor belt. One parcel goes on each three-foot segment of the belt. When the parcel passes a coding station a few feet beyond the loading point, two key-punch operators indicate at what point on the moving conveyor belt each

## Different-Sized Packages Sorted, Handled Automatically



**Key-punch operator indicates at what point along the moving conveyor belt a parcel is to be unloaded. Paddle sweeps parcel off main belt.**

parcel is to be unloaded. There are 39 removal points. As each package approaches its removal point, a paddle sweeps it onto a short inclined roller conveyor, placed at right angles to the main

belt. The parcel slides down the inclined conveyor to waiting truck.

The system was developed and installed by Stewart-Warner Corp.

A NEW transparent polystyrene packaging film is available which sells for less than most competitive transparent films. Trademarked Trycite, the film is made by Dow Chemical Co., Midland, Mich. Dow indicates that Trycite will sell for about 60 cents a pound. This is less than the present cost of cellophane and acetate film for similar applications.

Primary markets for Tryptite are in packaging foodstuffs, especially meats and bacon, and soft goods such as handkerchiefs and hosiery; and as "windows" in envelopes, cartons, and boxes. In addition, the film has possible applications in the fields of baking, confectionery, cleaning, dairy, drugs, grocery, wearing apparel, textiles and variety items. Dow is working on coatings for the film that will make it heatsealable. In its present form, Tryptite can be printed easily, according to Dow.

## Inexpensive Polystyrene Packaging Film Developed



**Trycite, new polystyrene packaging film, is shown utilized as window material in cartons of grocery products.**

For More Information Write No. 198  
on Inquiry Card—Page 32→  
PURCHASING

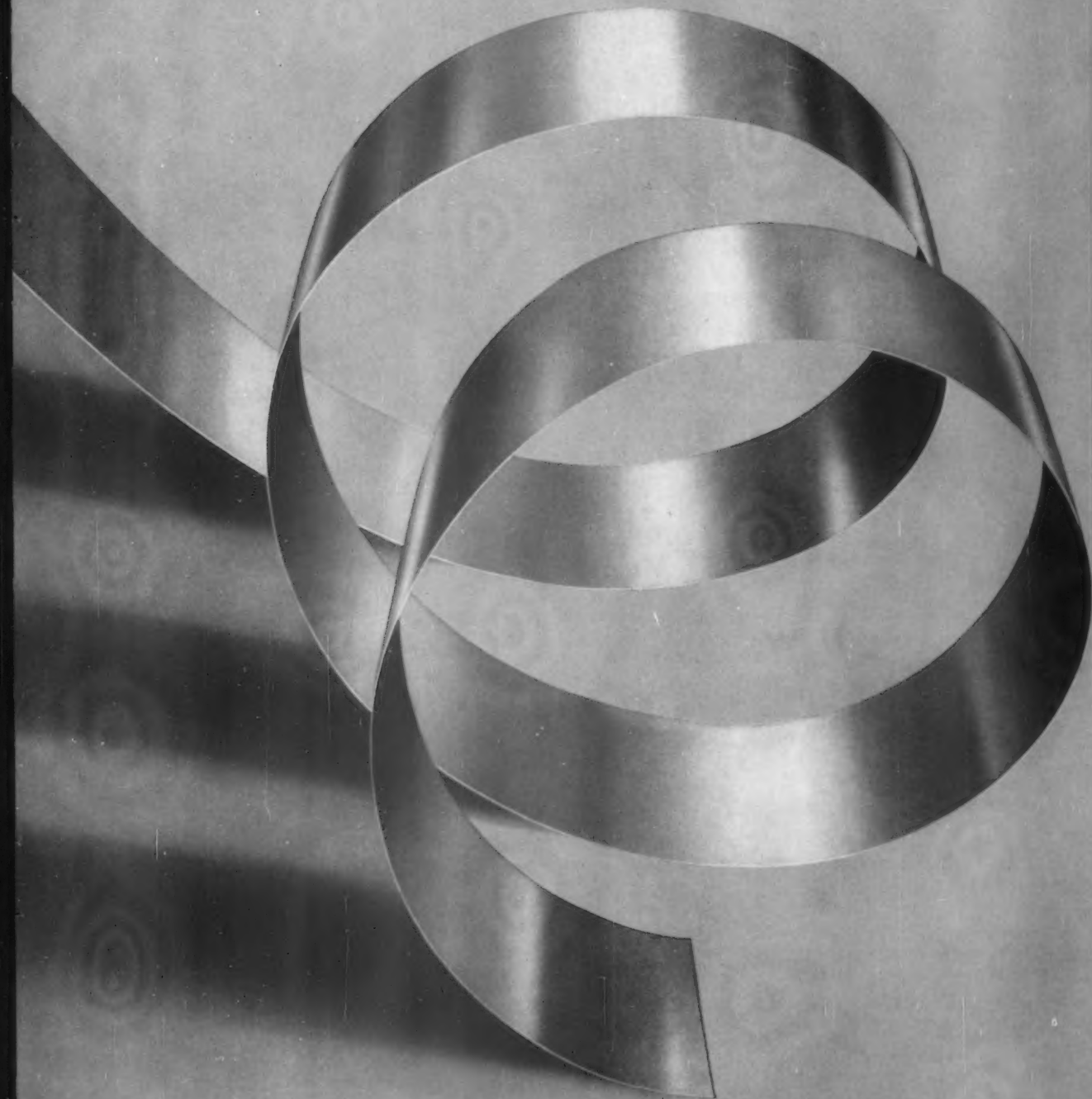


## stainless strip — to your specifications

If stainless strip is part of your product, consider using Crucible stainless. Crucible precision-rolls it to your exact specifications — produces finishes that are surpassingly lustrous. And Cruci-

ble's painstaking methods ensure uniform metallurgical quality as well as gauge uniformity in coil after coil. Why not obtain these combined qualities next time you need stainless? Crucible stain-

less is available in all gauges down to .010" and in all widths. Write to *Crucible Steel Company of America, The Oliver Building, Mellon Square, Pittsburgh 22, Pa.*



**CRUCIBLE**

**STEEL COMPANY OF AMERICA**

Canadian Distributor — Railway & Power Engineering Corp., Ltd.



An aluminum coupler plate and two steel pins do the job—with Cope's patented pin-type coupler.

## Cope cable trough cuts labor costs to a fraction!

Three simple parts—an aluminum coupler plate and two steel pins—are all it takes to connect complete sections of Cope cable trough . . . and in less than half the time required to connect two lengths of conduit. Furthermore, because each 24" width of trough supports as much cable as sixteen lengths of 4" conduit, you can sometimes actually reduce labor time *and costs* by almost 60% for the complete job!

**Space Saving Flexibility.** Design and construction features of lightweight, easy-to-handle Cope cable supporting equipment speed installation of space saving systems—even in the most cramped quarters. A complete line of system accessories and fittings allow for necessary

changes in direction or elevation. Supporting riser elbows, trough to box connectors, and drop outs provide maximum flexibility of installation to meet system requirements . . . reduce design time up to 25% for laying out your system.

**Cut Costs Three Ways.** You save *three ways* when you specify Cope cable supporting systems with pin-type coupler . . . trough, ladder, or channel.

- LOWER FIRST COST
- LOWER INSTALLATION COSTS
- LOWER SYSTEM MAINTENANCE COSTS

Discuss these advantages for *your* installation with a qualified Cope representative—or write to T. J. Cope Division, Rome Cable Corporation, Collegeville, Pa.

**T. J. COPE** *Division*  
ROME CABLE CORPORATION

For More Information Write No. 199 on Inquiry Card—Page 32



## Products

### Cuts Power Line Outage to Minimum



Here's a boon to electric power utilities: the development of a line fault indicator that locates trouble on overhead subtransmission lines. The indicator is permanently attached to power conductors at regular intervals. In the event of trouble, the indicator directs the repairman to the fault location, eliminating need for patrolmen to walk entire length of line. Return of normal load current releases the target. The manufacturer is Pneumafil Corp., Special Products Div., Charlotte 8, N.C.

Write No. 18 on Inquiry Card—Page 32

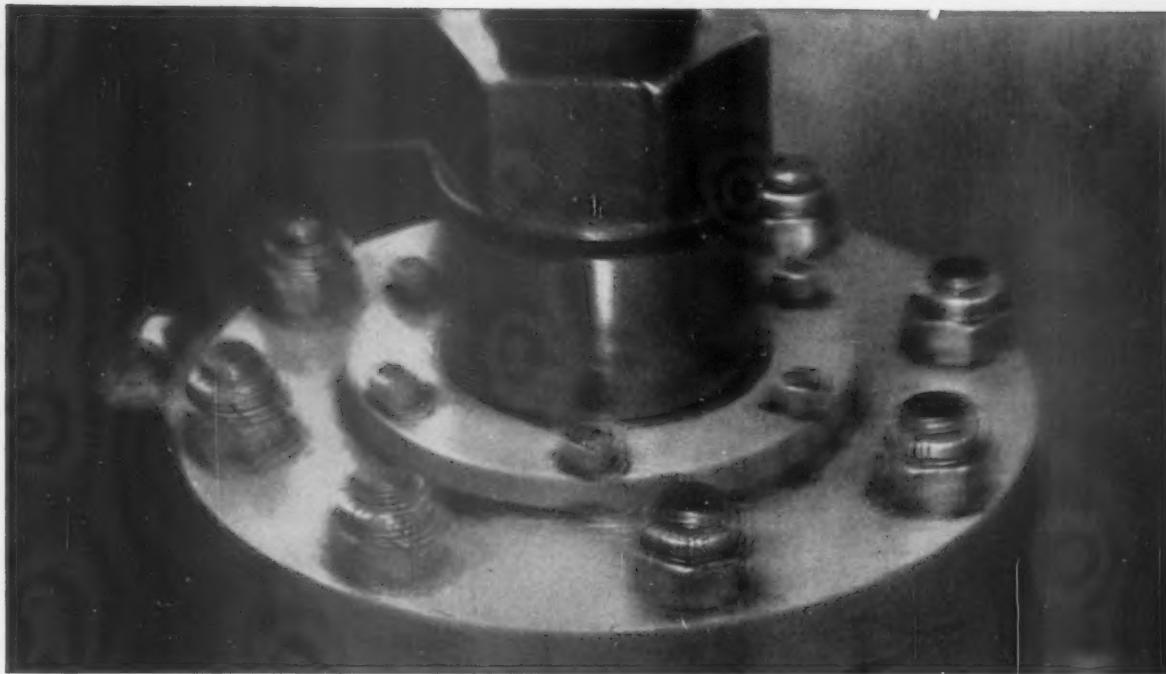
### Enamel Gives Appliances a Better Skin



The most important advance in appliance coatings since the discovery of alkyd resins is announced. This is a product, trade named "Dynakote." This enamel is a new type of oil-free baking finish based on a cross-linked vinyl copolymer. The coating offers the rich gloss and depth "look" of porcelain. However, it poses none

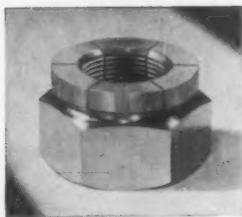
(Please turn to page 74)

PURCHASING



**Test of FLEXLOC reliability** is this application on preload control of 15,000 lb.-capacity fatigue testing machine. Apparatus is capable of 16,000 stress cycles per hour, and individual tests run to millions of cycles. FLEXLOCs do not vibrate loose.

## Cut Costs of Vibration-Proof Fastening with FLEXLOC Self-Locking Nuts



FLEXLOC self-locking nuts offer you a simple, practical solution to the problem of keeping fasteners tight under vibration. Constant jarring, high-speed oscillation, pounding of heavy machinery—nothing will shake them loose. They help give your product the competitive advantage of high reliability, a qualification that is rapidly

becoming critical in both industrial and consumer goods.

FLEXLOCs are 1-piece, self-locking units. They require no lockwashers, jam nuts or cotter pins. There is nothing to put together, come apart or get lost; no nonmetallic inserts to come out, deteriorate, or be chewed up by rough bolt threads.

A FLEXLOC goes on like an ordinary nut... start it with your fingers, then tighten it with a hand or speed wrench. FLEXLOCs torque easily, never gall or bind. If bolt threads are rough or imperfect, a FLEXLOC tends to smooth them out. As soon as 1½ threads are past the top of the nut, the FLEXLOC is fully locked. It does not have to seat to lock and can be used as a stop nut or a locknut.

Because they require no auxiliary locking elements, FLEXLOC

self-locking nuts facilitate design and specification, simplify inventory and handling, reduce assembly time and costs. They also save on maintenance, because they are readily removed and can be reused many times. Expansion of the locking section never exceeds the elastic limit of the metal, so that locking power does not diminish with reuse. See your authorized FLEXLOC distributor for more information. He carries FLEXLOC self-locking nuts in a full range of standard sizes and materials. Flexloc Locknut Division, STANDARD PRESSED STEEL CO., Jenkintown 31, Pa.

**hiR**  
High Reliability factor

At SPS we apply a dynamic standard of quality—continually refined—so that our fasteners will always have the high reliability factor required by today's faster speeds, higher temperatures, and greater dynamic stresses. By using SPS fasteners in your assemblies, you can increase their overall reliability—the certainty of predictable performance under actual service conditions.

For more information on the full meaning of reliability, write for a copy of the new SPS booklet "High Reliability."

*World's largest producer of precision threaded fasteners / and related products*

**SPS**

**Jenkintown • Pennsylvania**

Standard Pressed Steel Co. • The Cleveland Cap Screw Co. •  
Columbia Steel Equipment Co. • National Machine Products Co.  
• Nutt-Shel Co. • SPS Western • Standco Canada Ltd. •  
Unbrako Socket Screw Co., Ltd.

For More Information Write No. 200 on Inquiry Card—Page 32

# PACKAGING THAT PAYS OFF!



## Continental Steel Containers

- Positive protection
- Superior lithography
- Fast delivery
- Top quality
- Full line
- Full line of pouring spouts
- Famous Continental service

Call Continental when you need steel containers. Get top quality plus outstanding Continental service. Engineering and research assistance available to help you solve any packaging problem.



**PERMA-LINED TO  
PROTECT HARD-TO-  
HOLD PRODUCTS**

Airless hot sprayed  
enamel lining assures  
complete interior cov-  
erage, guarantees  
100% protection.

**CONTINENTAL CAN COMPANY**

Eastern Division: 100 E. 42nd St., New York 17  
Central Division: 135 So. La Salle St., Chicago 3  
Pacific Division: Reno Building, San Francisco 4

For More Information Write No. 201  
on Inquiry Card—Page 32

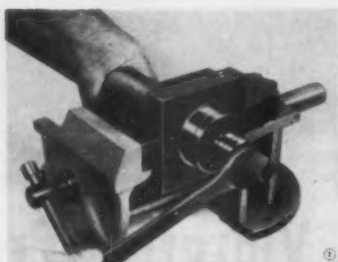
## Products

(Continued from page 72)

of porcelain's problems of application or chipping. Contrasted with conventional enamels, "Dynakote" shows far greater resistance to attack by chemicals and moisture. Also, its gloss retention is far superior under high heat conditions. The new enamel was formulated by Canadian Industries Ltd., P.O. Box 10, Montreal, Que.

Write No. 19 on Inquiry Card—Page 32

## Tool Speeds Production, Cuts Rejections



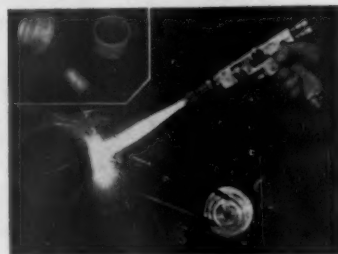
A spinning tool performs three operations at once—it expands, sizes and burnishes. As a result, production is increased, costs are decreased. Moreover, a superior and more durable, leak-proof joint is created. It is claimed that, by using this spinning tool, the time consumed in creating a joint on one operation was reduced from several hours to only a few minutes. Also, vibration tests have shown that the spinning process creates more desirable joints than by welding. The tool is made by The Gustav Wiedeke Co., 1833 Richard St., Dayton 1, Ohio.

Write No. 20 on Inquiry Card—Page 32



"Drop what you're doing. Coffee time."

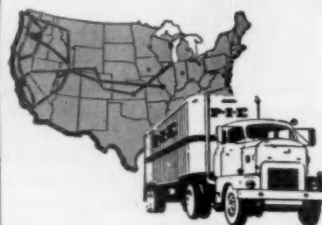
## Hard-Surfacing Tungsten Carbide Powder



A hardsurfacing powder with a high content of tungsten carbide can now be applied to steel parts by metal spraying techniques. The powder is said to provide a hard surface closely approaching the maximum wear qualities of cemented tungsten carbides. The latter have been successfully used for two decades in metal cutting tools. With the new spraying powder, irregular shapes and flat surfaces can be easily coated. Surface coatings can be controlled in thickness from .010" to .090". Kennametal Inc., Latrobe, Pa., produces the powder.

Write No. 21 on Inquiry Card—Page 32

## Shippers Agree... It's P-I-E!



## P-I-E

PACIFIC INTERMOUNTAIN EXPRESS

TERMINALS AND OFFICES  
IN PRINCIPAL CITIES

GENERAL OFFICES: P-I-E BUILDING  
14th and CLAY STREETS

P. O. BOX 958 OAKLAND 4, CALIF.

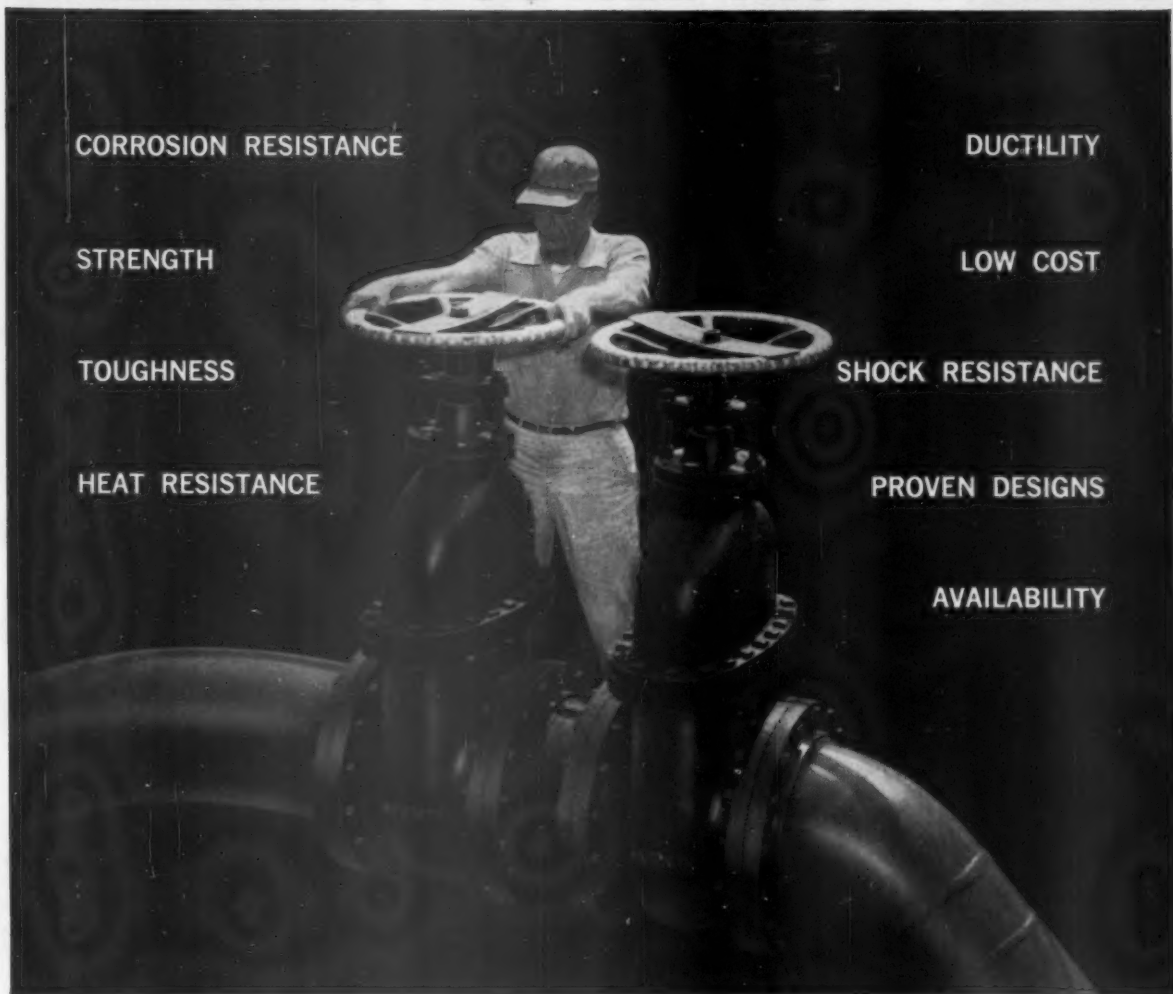
For More Information Write No. 202  
on Inquiry Card—Page 32

PURCHASING



*In your plant piping systems  
you get  
all these advantages with*

# WALWORTH DUCTILE IRON VALVES



CORROSION RESISTANCE

DUCTILITY

STRENGTH

LOW COST

TOUGHNESS

SHOCK RESISTANCE

HEAT RESISTANCE

PROVEN DESIGNS

AVAILABILITY

Walworth ductile iron valves give you — at low cost — corrosion resistance comparable to gray cast iron . . . strength approaching that of carbon steel . . . long life expectancy and minimum maintenance. Proven shock resistance . . . Walworth ductile iron valves have functioned satisfactorily after being heated to 1350°F and suddenly quenched.

When you buy Walworth ductile iron valves you get the benefit of Walworth's proven engineering and designs. Sizes ½ to 24 inches, screwed or flanged ends, OS&Y and NRS types.

For your copy of the new circular on ductile iron valves, contact your local Walworth distributor, or, write Walworth direct.



## WALWORTH

750 THIRD AVENUE, NEW YORK 17, N. Y.

DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD

WALWORTH SUBSIDIARIES: ALLOY STEEL PRODUCTS CO. • CONOFLOW CORPORATION • GROVE VALVE AND REGULATOR CO.  
M&H VALVE & FITTINGS CO. • SOUTHWEST FABRICATING & WELDING CO., INC. • WALWORTH COMPANY OF CANADA, LTD.

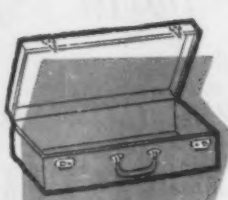
## A few typical applications of Taylor Vulcanized Fibre



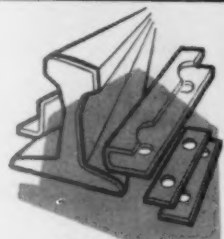
Welders' Helmets



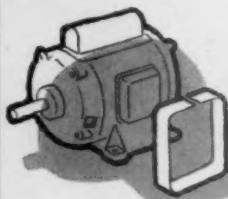
Golf Club Face Inserts



Carrying Cases



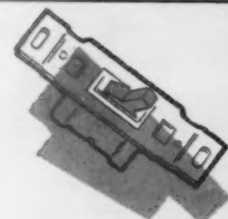
Track Insulation



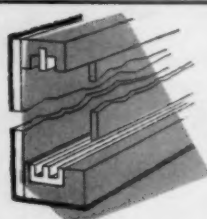
Motor Insulation



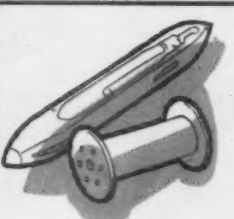
Abrasive Discs



Switch Parts



Sliding Door Guides



Shuttles and Bobbin Heads

## Vulcanized Fibre Is Versatile

The applications of Taylor Vulcanized Fibre are many in number. This is because of its many unusual characteristics. It is a hard, dense material with excellent physical, mechanical and electrical properties. It is tough and resilient; has high resistance to impact, abrasion, wear, organic solvents, oils and gasoline; it can be machined, stamped, punched and formed; it is attractive in appearance, light in weight.

Taylor Vulcanized Fibre is available in a number of different grades, in sheets, rolls and turned rods. Undoubtedly you have an application where the unique properties of vulcanized fibre can be put to work in your product. A Taylor application engineer will be glad to discuss requirements with you and recommend the best grade to fit them. Get the benefit of his advice by contacting TAYLOR FIBRE CO., Norristown 36, Pa.

# Taylor

LAMINATED PLASTICS VULCANIZED FIBRE

For More Information Write No. 204 on Inquiry Card—Page 32

## Products

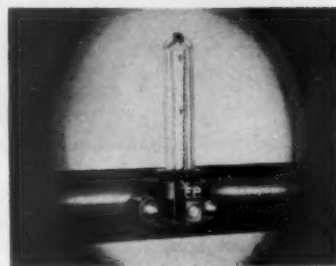
### Machine Laps True Contact Surfaces



A 24-inch semi-automatic lapping machine can deliver flatness to less than one light band (.00011"). It produces surface finishes as low as 1 microinch r.m.s. Work cycle of the machine is fully automatic, including the application of the lapping compound. A variable speed drive selects the best lapping rate. Specially designed magnetic truing rings maintain continuous plate flatness while the machine is in operation. The lapper is designed for finishing small parts in production lots. However, it can accommodate any large part that will fit in its 8 $\frac{3}{8}$ " ID truing rings. Taft-Peirce Mfg. Co., Woonsocket, R. I., developed the machine.

Write No. 22 on Inquiry Card—Page 32

### Meter Measures Flow in Either Direction



A corrosion-resistant indicating flowmeter determines flow in either direction in any pipe size from 1 $\frac{1}{2}$ " to 8". The instrument requires no flanges or matching orifice plates. It can be easily installed in any line in a few minutes. Readings are made directly by means of a ball float and a

(Please turn to page 78)  
For More Information Write No. 205  
on Inquiry Card—Page 32→

PURCHASING



## Neoprene serves as "flexible armor" on collapsible container for liquid cargo

A collapsible container that holds 3400 gallons of liquid cargo is now being used by Industrial Molasses Corporation of Leonia, N. J. After a molasses delivery, the empty container is rolled into a bundle only 7' x 4" long by 21" diameter and stowed with the trailer's return load of dry cargo.

The outside covering of this new shipping container is made of Du Pont neoprene chiefly because it resists the effects of sunlight and weather. The

neoprene surface will remain flexible in any climate, won't crack when unrolled after storage.

Neoprene adds many other advantages as well... such as resistance to abrasion, rough handling, oil and chemical attack. This balanced combination of properties makes neoprene the answer not only for collapsible containers, but also for many other maintenance products you use. Mail the coupon today for additional information on Du Pont elastomers.



**ELASTOMERS IN ACTION**

**HYPALON® •  
NEOPRENE**



REG. U. S. PAT. OFF.

**Better Things for Better Living  
... through Chemistry**

- ☐ I am particularly interested in \_\_\_\_\_
- ☐ Send me a free copy of *The Du Pont Elastomers* (a review of properties of neoprene and HYPALON).
- ☐ Add my name to the free mailing list of the *Elastomers Notebook* (contains articles based on uses of Du Pont elastomers in industry).

E. I. du Pont de Nemours & Co. (Inc.)  
Elastomer Chemicals Dept. PC-8  
Wilmington 98, Delaware

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Firm \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



under  
the boiler  
in a steam  
plant...



it's **constant-costs that count!**

**Be Thrifty!** Expensive boiler installations designed to burn fuels with limited futures is doubtful wisdom. The sensible alternative is to *bank on Bituminous!* Plotting your costs over the long run will prove efficiency and lowest cost in most cases. For, Bituminous reserves are unlimited—they're nearest to most manufacturers—coal technology improves burning equipment, efficiency and cost year by year.

Let our Coal Traffic Representatives plot a constant-low-cost Bituminous coal for your needs. Ask our man!

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**BALTIMORE & OHIO RAILROAD**

**BITUMINOUS COALS FOR EVERY PURPOSE**

## Products

(Continued from page 76)

linear scale calibrated in gpm. Scales covering flow rates from 3-30 gpm to 200-2000 gpm are available. Because the meter functions without need of any accessory equipment, inventory is reduced to just one item. The manufacturer is Fischer & Porter Co., 677 Jacksonville Rd., Hatboro, Pa.

Write No. 23 on Inquiry Card—Page 32

### Key-Operated Plug Prevents Accidents



Hazards of unauthorized use of electrical tools are eliminated by use of an ingeniously designed plug. Plug is equipped with a key-operated nylon safety bar. The latter in its locked, projecting position prevents the entrance of the plug into an electrical outlet. Thus power tools, etc., will remain immobilized. The plug meets a definite safety need in plants, factories and other places where potentially dangerous electrical equipment is accessible to untrained personnel. The Yale & Towne Mfg. Co., Chrysler Bldg., New York 17, designed the safety plug.

Write No. 24 on Inquiry Card—Page 32

**FOR MORE INFORMATION  
ON PRODUCTS IN  
THIS ISSUE  
USE INQUIRY CARD  
PAGE 32**

For More Information Write No. 206 on Inquiry Card—Page 32



## Dolly Cuts Manpower in Parts Handling



A dolly has been placed on the market which enables one man to handle and move multiple parts-storage-bins safely and with ease. This simplifies movement of parts, tools and materials within the plant. The bins nest securely in dolly. They are made of heavy gage sheet steel of all-welded construction. Swivel casters on both ends and two rigid casters in center provide dolly with easy mobility. It is a product of Stack-bin Corp., 1127 Main St., Pawtucket, R.I.

Write No. 25 on Inquiry Card—Page 32

## Anti-Corrosive Coating For Steel Surfaces



An irreversible uniform emulsion of coal-tar pitch can now be cold-applied as an anti-corrosive coating for steel surfaces. In cured form, the coating adheres firmly in a smooth, tough continuous film that is highly durable. There is no flow at high temperature or brittleness at low. It dries from the inside out by evaporation of the water vehicle through the water film. The result is a flexible, dark-grey, non-tacky, impermeable barrier. Its producer is Selby, Battersby & Co., 5220 Whitby Ave., Philadelphia 42, Pa.

Write No. 26 on Inquiry Card—Page 32

AUGUST 4, 1958

## Some like it **HOT**

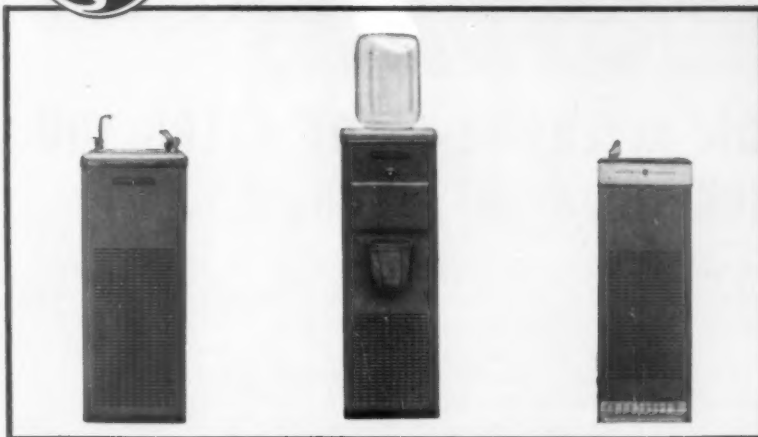
That's why this handsome General Electric Hot and Cold Combination model is so popular. Serves piping hot water for coffee, tea, cocoa, broths, soups and other instant beverages. Cuts coffee-break time—and boosts morale as it does so.

## Some like it **COLD**

Same G-E Combination serves refreshing cold water—and includes a roomy refrigerated compartment. Ideal for storing beverages, milk, lunches and—if desired—chemicals, biologicals and other unusual perishables. Also provides generous supply of ice cubes. A virtual refreshment center on 15" x 15" of floor space—serves up to 45 office workers.



# WATER COOLERS



**PRESSURE TYPE HOT AND COLD COMBINATION.** Another popular G. E. model for cutting coffee-break time. Provides a constant supply of piping hot and sparkling cold water. Serves up to 155 people in schools and offices—90 people in light industry.

**BOTTLE TYPE WITH COLD COMPARTMENT.** Supplies wholesome cold water at all times—and has a roomy refrigerated compartment for storing beverages, perishables, etc., provides generous supply of ice cubes. Serves up to 45 office workers.

**STANDARD PRESSURE TYPE.** Features no-squirt bubbler—anti-splash basin—easy-to-clean top—full-width foot pedal. In 7 different sizes—serves from 40 to 85 factory workers—45 to 145 office workers. Bottle type also available.



For full information call your General Electric Water Cooler dealer—or write General Electric Company, Air Conditioning Department, Troup Highway, Tyler, Texas.

# GENERAL ELECTRIC

In Canada, Canadian General Electric Co., Ltd., Montreal

For More Information Write No. 207 on Inquiry Card—Page 32



## HOW RIVERSIDE-ALLOY HELPS YOU PICK THE RIGHT STAINLESS

**VAST VARIETY**—Knowing your problem, Riverside-Alloy can supply a stainless steel particularly suited to your needs... in wire, rod, or strip form. Or, lacking a stock steel, Riverside-Alloy will work with your engineers to develop new varieties.

**SPECIAL STEELS**—Riverside-Alloy can supply special stainless steels, too—fully soft or spring temper... magnetic or non-magnetic... for springs or staples, woven baskets or egg beaters, in just the size and finish you need.

**FREE CONSULTATION**—Let a Riverside-Alloy representative discuss your problems with you. Since

1919, our steel specialists have been available for consultation and advice, without obligation. For the name of your nearest Riverside-Alloy representative, write:  
*Alloy Metal Wire Works,  
 Riverside-Alloy Metal Division,  
 H. K. Porter Company, Inc.,  
 Riverside, N.J.*



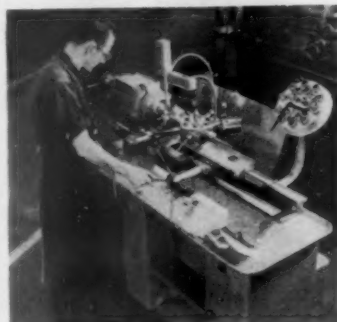
FOR FREE CATALOG, "Design Handbook of Stainless Steel", write on your letterhead to the address above.

## H. K. PORTER COMPANY, INC.

RIVERSIDE-ALLOY METAL DIVISION  
 For More Information Write No. 208 on Inquiry Card—Page 32

## Products

### Hand Screw Machine Suits Short Runs



A boon to the metalworking shop will be found in a newly engineered hand screw machine. The tool was designed for runs where the volume does not justify the high cost of an automatic screw machine, and yet can not be handled economically by an engine lathe. The hand screw machine manufactures a wide variety of parts, from simple washers and shafts to precision parts used in the electronics and aircraft industries. The manufacturer is Rockwell Mfg. Co., Delta Power Tool Div., 400 N. Lexington Ave., Pittsburgh 8, Pa.

Write No. 27 on Inquiry Card—Page 32

### Precision Spur Gear Kits



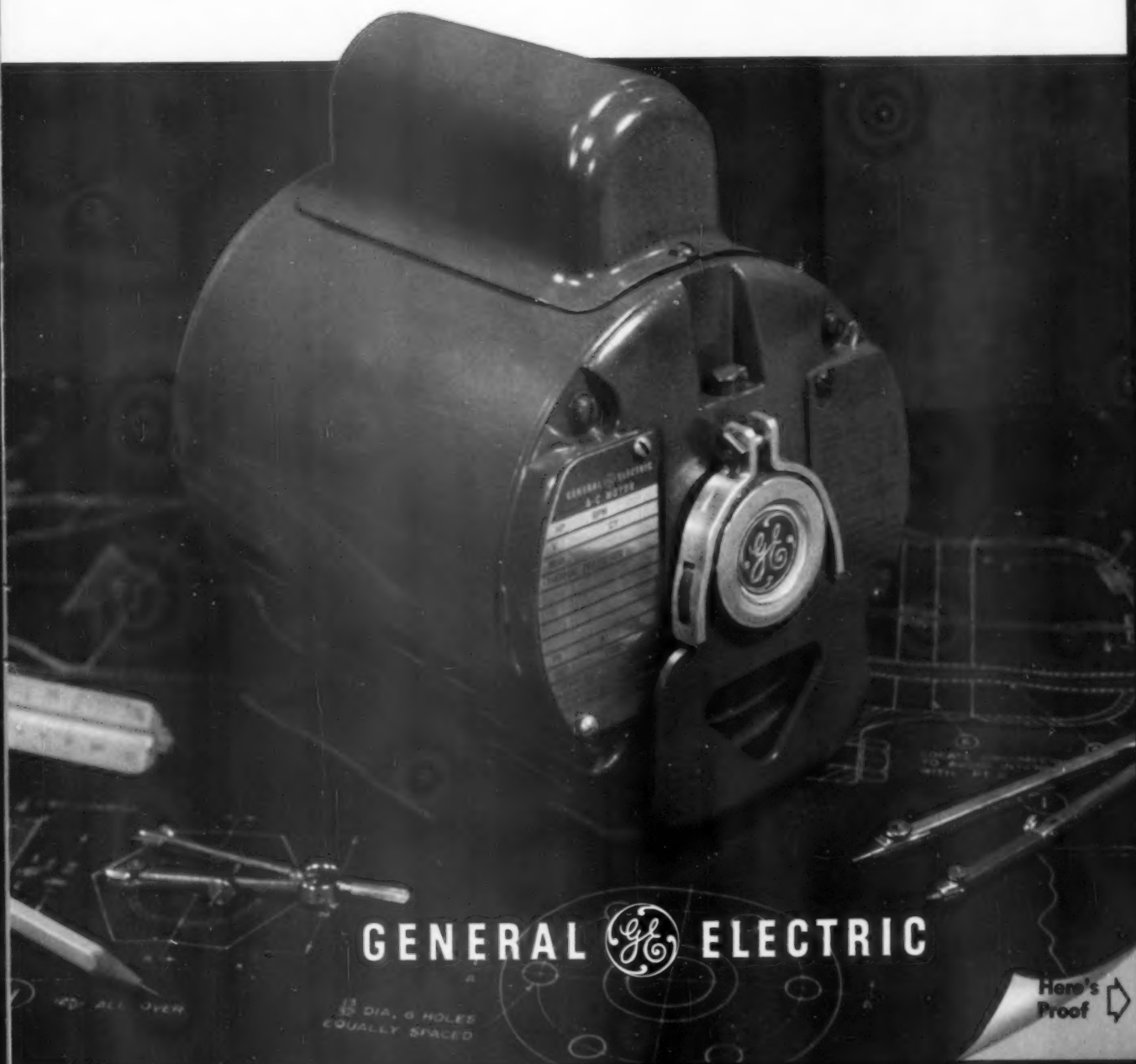
A new type of super gear kits, made up of A.G.M.A. precision I, II, or III gear are now available. They have been designed for use in breadboards, mockups, experimental and prototype applications. They are made of stainless steel and aluminum in 48, 64, 72, 96 and 120 pitches. Each kit comes in a felt-lined case to protect the del-  
 (Please turn to page 84)

For More Information Write No. 209 on Inquiry Card—Page 32→  
**PURCHASING**

*Years ahead G-E Form G motors designed to...*

Since these motors were first introduced they have been the key to new design ideas . . . ideas to improve products, cut costs, and simplify assembly and production procedures. They can do the same for you!

# HELP CUT YOUR PRODUCT COSTS



GENERAL  ELECTRIC

Here's  
Proof 



# VALUE ANALYSIS

With General Electric Form G Motors

## Decora Manufacturing Company

**CUTS SHIPPING COSTS  
\$1.50 PER UNIT**

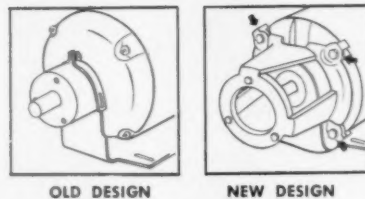
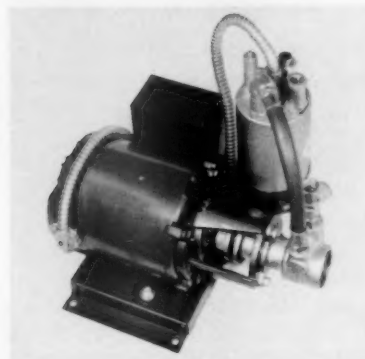
Decora Manufacturing Company set out to design a new portable compressor . . . lighter and more compact . . . intended to deliver a good volume of high pressure air.

The General Electric Form G  $\frac{3}{4}$  hp motor was a natural—it required 40% less space, weighed only half as much as the motor they were using, and made possible the new model compressor.

Today, weight of the new compressor is down 30 pounds. Shipping costs are down an average of \$1.50 per unit. The sleek modern lines of Decora's compressor make it look better and sell faster.



## Temprite Products Corp.



## ELIMINATES COSTLY SPECIAL MOTORS

A standard General Electric fhp motor enabled Temprite Products to cut manufacturing costs and simplify the design of their "Bantam 100" carbonator pump.

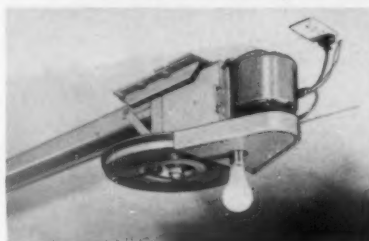
Temprite was using another manufacturer's special motor with an integral pump mounting. The close tolerances found on all standard Form G motors made it possible for them to eliminate the costly special motors.

Reason: Close tolerances let them switch to an open, lightweight bracket designed by a leading pump manufacturer to fit G.E.'s standard endshield. No special machining was required because every G-E fhp motor is designed and manufactured to these rigid specifications:

- Each boss face (shown in "new design" above) is cast to 0.01 inch wobble relative to the bearing bore.
- Outside diameter of the pulley endshield is held to 0.004 in. tolerance and 0.004/.005 in. on eccentricity.

Results: Elimination of added cost of special motors, a weight reduction of over 50%, and a more compact, lower cost pump.

## Barber-Colman, OVERdoors and Operators Division



## STANDARD G-E MOTOR FEATURES CUT COST 12%

General Electric's Form G motor helped Barber-Colman realize a 12% savings in manufacturing costs. And standard, no-extra-cost features did it . . . G.E.'s all-angle sleeve bearing design and the removable cradle base.

Tests proved that the G-E motor could be mounted shaft-down without sacrificing lubricating or performance qualities, thanks to G.E.'s all-angle sleeve bearing. This saved Barber-Colman the extra expense of ball-bearing motors for this application.

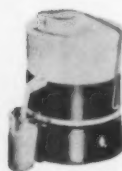
An extra benefit: In previous Barcol Automatic Door Operators, two heavy expensive mounting brackets to hold the motor had to be manufactured and assembled. In today's design, the G-E motor's removable base is spot-welded directly to the operator frame, cutting over-all product weight and saving on assembly time.

In all, these advantages meant a definite product improvement at a 12% cost reduction.

## Sweden Freezer Company

BEFORE—57 Parts

NOW—28 Parts



## FEWER PARTS REDUCE ASSEMBLY TIME 63%

The photographs above help to show the design simplification which the G-E motor made possible in the new Sweden Speed Juicer. Results: Reduced number of parts 50%, from 57 to 28 pieces.

Nearly doubled production with a minimum increase in payroll.  
Cut installation time 63% over the previous method.  
Made product more compact, more attractive, more dependable.



# IDEAS

## Red Devil Tools



### 650 SHAKES PER MINUTE

General Electric Form G motors are built to take it . . . and here's proof! This Red Devil paint conditioner operates at the rate of 650 shakes per minute, a severe test for any motor. Red Devil engineers looked long and hard for the right motor. They required small size. Bearings had to be extra rugged. Insulation had to be able to shrug off vibration. Windings had to be bonded to stay. A breakdown in any of these components would cause motor failure and reflect on the quality of their machine.

General Electric's standard Form G motor matched the extra-high quality Red Devil demanded. Engineers from G.E.'s General Purpose Motor Department helped in applying the right motor, made many test runs, and offered free engineering assistance both in the factory and at the Red Devil plant. The result: a high quality, truly dependable machine.

An extra benefit: Red Devil's customers, like most machine buyers, prefer General Electric motors . . . and there's a General Electric small motor service station in every part of the country ready to give fast, emergency service.

## A full line of General Electric years ahead fhp motors is available in the ratings you need



General Electric offers you prompt delivery on more than 850 basic models. You can choose the right motor for your product without buying costly "specials."

### LET G-E ENGINEERS HELP "VALUE-ANALYZE" YOUR MOTOR PROBLEM FOR POSSIBLE COST CUTS

General Electric's sales engineers are ready to assist you in any way they can to help you lower costs, increase the power of your product, or improve its design. Years of experience have taught them many "tricks of the trade" which can help you meet your product requirements at lower cost.

Just call your General Electric Apparatus Sales Office. An experienced sales engineer will call as soon as possible. And, if your problem is especially tough, factory application engineers will be called in, too!

Start a value analysis of your product's drive system today. Call now to find out how you can improve your product . . . at a savings! General Electric Company, Section 702-66, Schenectady 5, New York.



*Progress Is Our Most Important Product*

**GENERAL  ELECTRIC**

# FLEXON

a new name in  
hydraulic hose assemblies  
and fittings

## Backed by over 56 years experience!

The name FLEXON—long a symbol of quality in flexible connections—now identifies a complete line of hydraulic hose and fittings.

Built into this line is the "know-how" gained through 56 years of manufacturing experience . . . 36 years of hydraulic hose experience. Like all products bearing the FLEXON label, these fluid power products are backed by continuous research and rigid quality control . . . and are volume-produced with modern facilities . . . to give you performance and value second to none.

Find out how FLEXON craftsmanship can add dependability to your fluid power applications. For specific recommendations, send an outline of your requirements.



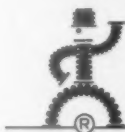
FLEXON rubber hose is available in a wide range of types and sizes for every fluid power application.



FLEXON complete hose assemblies are furnished with a broad choice of standard and special fittings for every pressure range.



FLEXON fittings are available in reusable, pressed on, clamp, flange, S.A.E., and special types, to meet every need.



**Flexonics Corporation** RH-12

Mr. Flexon identifies products of Flexonics Corporation that have served industry for over 56 years.

1316 S. Third Avenue • Maywood, Illinois  
In Canada: Flexonics Corporation of Canada, Ltd., Brampton, Ontario  
Manufacturers of metal and rubber hose, expansion joints, metallic bellows and aircraft components.

For More Information Write No. 210 on Inquiry Card—Page 32

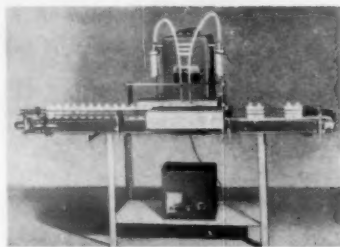
## Products

(Continued from page 80)

icate precision parts and contains a wide variety of gears, shafts, collars, couplings, clamps and other miscellaneous items. It can be procured from P.I.C. Design Corp., 477 Atlantic Ave., East Rockaway, N.Y.

Write No. 28 on Inquiry Card—Page 32

## Containers Filled Without Spilling Liquid



A conveyor type automatic filler is designed for filling plastic vials, glass or metal containers in standard or odd shapes. The machine incorporates a positioning mechanism that seats the containers precisely under the filling spouts. This arrangement eliminates spilled liquids. As a result, perfectly clean, dry containers are fed to the labelling machine. The filler handles all size containers ranging from one dram to 16 oz. The two models have filling speeds of 60 and 120 containers per minute, respectively. The fillers can be procured from National Instrument Co., 2701 Rockwood Ave., Baltimore 15, Md.

Write No. 29 on Inquiry Card—Page 32



"I've been trying to get past your receptionist for three months."

Ship via D-C

Ship via D-C

For Fast, Dependable Service, Coast-to-Coast . . .

Mark your  
Purchase  
Orders

**"D-C"**

**Purchasing Executives . . .**

. . . from coast-to-coast are finding out they can eliminate their shipping worries by marking orders "D-C".

D-C's direct, coast-to-coast motor carrier service assures you these benefits:

- **D-C IS FASTER**—One-carrier direct service from coast-to-coast. 2-man sleeper cabs go straight-thru with no transloading—cuts 20% off running time.

- **D-C IS SAFER**—One-carrier responsibility from pickup to delivery assures safe arrival, speeds tracing.

**D-C IS MORE DEPENDABLE**—One-carrier control means experienced personnel, modern equipment and facilities all the way.

Join the ever-growing list of satisfied Purchasing Executives who have found the answer to shipping problems—specify **D-C**—the coast-to-coast choice for coast-to-coast service!

ONE  
STEP  
ACROSS  
THE  
NATION



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Chicago, Illinois . . . LA. 3-7440	New York, New York . . . LO. 4-3320
Cleveland, Ohio . . . SH. 9-1666	(N. Bergen, N. J.) . . . UN. 3-0900
Colo. Springs, Colo. . . ME. 2-1486	Owensboro, Kentucky . . MU. 3-5363
Denver, Colorado . . . DU. 8-4567	Phoenix, Arizona . . . AL. 8-5321
Detroit, Michigan . . . VI. 3-9505	Pueblo, Colorado . . . LI. 3-4425
Evansville, Indiana . . HA. 3-6487	St. Louis, Missouri . . . CH. 1-7830
Kansas City, Mo. . . . HU. 3-9343	Seattle, Washington . . MA. 4-3850
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†DC operators of Eck Miller—Terminal Cities

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\*\*Trailer Pool Only

Ship via D-C

**"D-C"**

**DENVER CHICAGO  
TRUCKING CO., INC.**

The ONLY Coast-to-Coast Carrier

# Office Equipment and Supplies

## Modernize for Greater Efficiency



A 72 inch desk and console combination of anodized aluminum in bronze gold and natural finish. Top in "Tawny Walnut."



A 66 inch desk for secretary or receptionist designed to harmonize with companion executive office.

SOME PEOPLE feel that a roll-top desk can only be found in a museum. This is not so; even though it should be so. There are many rolltops and desks of the same vintage still to be seen in executive offices throughout the country.

Time study engineers, methods men and decorators are continually stressing the importance of office decor and the results it helps to achieve in the smooth flow of paperwork.

Furniture manufacturers have answered these needs with an ever-increasing number of styles and types of office furniture. Among the latest to come forward with a new style is the General Fireproofing Company.

Recently unveiled at the company's headquarters in Youngstown, Ohio was "a completely new concept in executive office furnishings and equipment called 'Italic Styling.'"

The phrase, *Italic Styling*, was created because of the similarity between the slanted front leg of this new executive furniture and the well-known slant of italic lettering. In addition, italics are used for emphasis in printing, and the slanted leg makes this furniture stand out distinctively.

GF Studios, a new company division, has been set up to handle sales of this new office concept throughout the country. The new division is staffed with a specially trained corps of interior design specialists, headed by nationally known authorities in the field of office decorations and arrangements.

As part of its service, the new division will supervise complete office redecoration including carpeting, drapes, office appointments, and accessories, all blended to fit a specific color and arrangement theme.

While the new line is geared to create a new concept in executive offices, the same design principle can be incorporated throughout an entire series of offices so that all decorations fit within a unified concept.





Another leading company meets the big Profit Challenge of 1958 with an Edison Voicewriter tailor-made dictating system.

## *Nabisco increases efficiency...*

**improves correspondence output and saves \$30,000 annually with Edison Voicewriter dictation!**

National Biscuit Company controller, C. S. Webster says: "We set out to cut the cost of our General Office typewritten communications load and, at the same time, find a more effective method of handling this necessary job. Centralized dictation recording with Edison Voicewriter has supplied the answer to both problems by cutting equipment cost 65%... by improving our output of correspondence 31%... by doubling our capacity for typewritten correspondence of all kinds."

Edison... the organization that pioneered dictating equipment and network dictation... has over 70 years' experience in the office correspondence field. Why don't *you* investigate the Edison systems know-how that currently saves

Nabisco more than \$30,000 a year?

**A Voicewriter tryout is easy!** There's no need to start off with a large system. With the Voicewriter VPC-1, doubling as a dictating instrument and secretarial transcriber, any executive can quickly clean up correspondence at his desk, at home, or on the road... have time for other important tasks. And with the Edison easy-pay plan it costs only \$17.81 a month.

**Your secretary will like the Voicewriter, too!** Your voice comes through accurately, without interruptions, on the Voicewriter Diamond Disc. Secretaries can take care of routine typing faster, with less effort... and have more time for the interesting responsibilities of a "Girl Friday."



**Let us prove that you will profit with Voicewriter!**

Now's the time to find out just what Edison Voicewriter... real dictating equipment... can do for you. See how much more it offers over the so-called economy makes! For a free demonstration—or literature—write Dept. PM-804 at the address below.

## **Edison Voicewriter** • a product of Thomas A. Edison Industries

Thomas A. Edison Industries, West Orange, N. J. — In Canada: 32 Front Street W., Toronto, Ontario



For More Information Write No. 212 on Inquiry Card—Page 32

AUGUST 4, 1958



The young lady is  
to be commended  
**BECAUSE**

**REMARKABLE  
RESISTALL  
LINEN LEDGER  
IS WASHABLE!**

and withstands all such things as  
hard rubbing without roughening  
the surface . . . plus

**Resistance to**

**Boiling water  
Oil and grease  
Hard handling  
Many alkalis and acids  
Perspiration**

RESISTALL Linen Ledger is made of  
100% new, white cotton fibers.  
Another famous L. L. Brown quality  
value.

**YOURS AT VIRTUALLY  
NO INCREASE IN COST**

**L. L. BROWN**

Correspondence & Record

**PAPERS**

Since 1849

Adams, Massachusetts



Write No. 213 on Inquiry Card—Page 32

88

## Office Equipment



A new ten-key adding machine, hand-operated for adding, subtracting and listing has just been announced by the **Monroe Calculating Machine Company, Orange, New Jersey**. The machine is price-designed to enable purchasing agents to put one on every desk; and is rugged enough to withstand the wear and tear of heavy use.

Write No. 32 on Inquiry Card—Page 32

A new drafting medium—**Duracene Tracing Film**—that is expected to replace conventional materials, including cloth has been introduced by **Keuffel & Esser Company, Hoboken, New Jersey**. So strong as to be virtually indestructible, this film cannot be torn. It is permanent and will not discolor, split, or crack from age or heat. Its uniformly high transparency produces clearer reproductions in a shorter time than other drafting media. Prime applications include all instances where the preservation of valuable drawings or frequent handling of tracings are involved. The moderate cost, however, makes it suitable for general drafting room use.

Write No. 31 on Inquiry Card—Page 32



Two all-metal desks designed for executives who need a lot of elbow room were recently introduced by the **Columbia-Hallowell**

**Div. of Standard Pressed Steel Co., Jenkintown, Pa.** Both models offer more than 20 per cent additional work area than standard desks without increase in occupied floor space. Key to the extra work area of the new desks is extension of the work surface beyond the body of the desk. The angles of the pentagon-shaped top permit the accommodation of up to 10 persons at a conference, with plenty of leg and elbow room.

Write No. 32 on Inquiry Card—Page 32



A new method for cleaning wall-to-wall carpet installations was introduced recently by **Racine Industrial Plant, Racine, Wisconsin**. The process includes a new machine, the **Host Electric Upbrush**, and a cleaning compound, **Host Drycleaning for Carpeting**. The most significant features of Host are that it is easy to use, cleans by removing dirt, restores carpeted texture, and leaves room ready for instant use with no wait for drying. **A. Beshar & Co.** was selected as the dealer for the New York metropolitan area.

Write No. 33 on Inquiry Card—Page 32

A new eight page illustrated booklet, especially prepared as a factual guide in the selection of office copying machines, has been published by **Copease Corporation, 425 Park Avenue, New York, N. Y.** Titled, "The Truth About Office Copying Machines," the booklet analyzes the principal reasons for the growing use of copying equipment in modern business offices, and points out the advantages and disadvantages of the various copying machines on the market.

Write No. 34 on Inquiry Card—Page 32

PURCHASING



# BUSINESS FORMS WITHOUT CARBONS


NCR PAPER DOES IT!... produces cleaner, clearer copies

Business forms users everywhere are discovering that NCR Paper speeds up their work. Without using carbon paper or even any carbonization, this amazing paper makes perfect copies of sales slips, invoices, premium notices, stock requisitions—any one of hundreds of applications where clean, clear copies are needed.

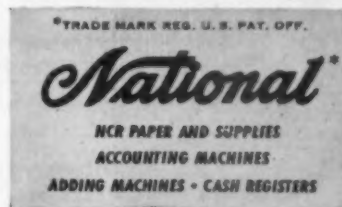
Non-smearing NCR Paper, perfected by the research laboratories of The National Cash Register Company, eliminates smudging of copies or fingers and

is easy to handle because it requires no carbon inserts. Up to five legible copies can be made with a standard typewriter, ball-point pen or pencil and eight or more with a business machine or electric typewriter.

NCR Paper is simple to use. Just put together several forms. Copies are obtained from hand written or business machine or typewriter forms. Finished copies are always neat and clean, easy to read.

Have your forms printed on NCR Paper by your present forms supplier. You'll be amazed how easily it solves the problem of producing multiple copies. You'll get better, cleaner copies in less time! Phone your present forms supplier, today, for further information. 

ANOTHER PRODUCT OF  
**THE NATIONAL CASH REGISTER COMPANY, Dayton 9, Ohio**  
989 OFFICES IN 94 COUNTRIES





## THE carbon for any typewriter, and nearly every copy job!

Flexibility and then some, that's NU-KOTE, the *first* plastic-base typewriter carbon. Just one grade and finish for any typewriter and practically any copy job imaginable. NU-KOTE outlasts ordinary carbons 3 to 1. And NU-KOTE makes the cleanest copies, keeps hands clean, too. You get clear, sharp copies, first to last—as your *free* trial will prove! Available only through your local dealer.



### FREE SAMPLE!

For a free sample of NU-KOTE just mail this coupon, attached to your company letterhead.



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P-104

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For More Information Write No. 215 on Inquiry Card—Page 32

## Office Equipment



Lightweight and rapid sheet changing are features of the Jet-Lok, a looseleaf binder manufactured by **The Heinn Company, 3800 W. Vliet St., Milwaukee.** The new binder uses no screws; holds sheets under compression or with loose anchorage for flatness when open. It also allows expansion of 75 per cent over its minimum capacity. It can be made for sheets from 9½ to 12 inches.

Write No. 35 on Inquiry Card—Page 32



The Olivetti Graphika, a manual typewriter with proportional spacing, is now being marketed by **Olivetti Corporation of America, New York.** The Graphika automatically gives each letter the amount of space appropriate to its shape. The space bar is in two sections and provides a choice of spacing between words. Right hand margins can be "justified," as on a printed page, when desired. By using the two-section space bar and Expander Lever in various combinations, a wide variety of effects can be obtained.

Write No. 36 on Inquiry Card—Page 32

Latest advances in **offset duplicating supplies** are described in a new catalog (#22) offered by **Michael Lith, Inc., 143 West 45th Street, New York, N. Y.** The catalog is designed for organizations with Multilith, Davidson, A. B. Dick, Whitin and other similar duplicating machines.

Write No. 37 on Inquiry Card—Page 32



Complete ...  
Accurate ...  
Easy to use ...



can be kept right on your desk



"We use Conover-Mast Purchasing Directory in place of all others, as it is always up-to-date and complete."—J. F. Sayre, Pur. Supt., Armstrong Rubber Mfg. Co., Des Moines, Iowa

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## Association News

### New England PA's on Plant Tour

Twenty-seven members of the New England Purchasing Agents Association wound up their current series of plant visits by touring the world's most modern brewery, the Natick, Mass. plant of the Carling Brewing Company.

The trip was arranged by Herbert W. Rixon, Jerguson Gage and Valve Co., chairman of plant visitations for the NEPA. The host was Philip F. Bamforth, purchasing agent for Carling's northeastern operation.

It was the first time that NEPA members had toured the facilities. Many stated that they would return at a later date with their wives and friends. Mr. Bamforth, aided by the plant's security force, served as guide. An informal session was held in the attractively decorated visitors' lounge. On the tour the members learned that nine-tenths of the raw materials and supplies used by the Natick plant, are purchased in New England.



J. F. Nowell, right, of Atlantic Pipe and Supply, Inc., points out to W. J. Rudgis of the same firm an application of one of their company's devices in Carling's carbonating room.



President F. Stan Romanse

### New York PA's Elect Officers

The Purchasing Agents Association of New York elected F. Stan Romanse, Babcock & Wilcox Co., president for the 1958-59 association year.

Other officers elected were: George W. Baker of the Port of New York Authority, first vice-president; Gailon C. Fordyce, American Cyanamid Co., second vice president; Charles B. Adams, General Electric Co., director; Robert Unger, Dragon Cement Co., director; Micheal D. Mac-

Burney, Barrett Division, Allied Chemical Corp., director; Lewis A. Norris, New York Stock Exchange, treasurer.

Mr. Romanse joined the Association in 1947, was active in committee work, served two terms on the board of directors, was elected second vice president for 1956-57 and served as first vice president prior to succeeding David S. Gibson of the Worthington Corp. as president.



Charter members of the Milwaukee Ass'n are: (from left, standing) Joseph W. Nicholson, Theodore F. Wolter, Orville G. Starke, Thomas C. Ingermann and W. H. Wenzel, and (from left, seated) Paul C. Stahnke, J. E. Moriarty, Jack T. Clancy, and G. H. Money.

### Milwaukee Ass'n Observes 40th Anniversary

Seven charter members were present when the Milwaukee Association of Purchasing Agents observed its 40th anniversary at a dinner at the Elks club.

William J. Grede, president, Grede Foundries, Inc., of Milwaukee and former president of the National Association of Manufacturers, was the speaker. Other newly elected officers are Fred J. MacDougall, Allis-Chalmers Manufacturing Co., vice-president; T. C. Ray, Inland Steel Products Co., secretary; Frank E. Messar, Globe-Union, Inc., treasurer, and Clancy, national director.

When it's tool-up time in Detroit—  
**"UNITED AIR LINES AIR FREIGHT  
 GIVES US A HEADSTART  
 ON NEXT YEAR'S MODEL"**

—E. D. HEILBRUN, Director of Traffic  
 The Budd Company, Philadelphia, Pa.



"When Detroit agrees on final changes for next year's cars, our two Philadelphia plants move with all possible speed on jigs and dies. United fits

right into the speed picture. They always have space to Detroit for us when we need it. And they use kid gloves in handling our shipments!"



**WALTER BOYD**, United's cargo representative, watches the shipment land at Willow Run—on time. You find this dependability throughout United. People go out of their way to give each shipment personal attention.



#### UNITED AIR FREIGHT RATES ARE LOW

	per 100 pounds*
PHILADELPHIA to DETROIT . . . . .	\$ 6.05
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DENVER to NEW YORK . . . . .	\$17.70
SAN FRANCISCO to SOUTH BEND . . . . .	\$21.05
AKRON to SEATTLE . . . . .	\$22.50

\* These are the rates for many commodities. They are often lower for larger shipments. Rates shown are for information only, are subject to change, and do not include the 3% federal tax on domestic shipments.

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For More Information Write No. 216 on Inquiry Card—Page 32  
 AUGUST 4, 1958

For More Information Write No. 217 on Inquiry Card—Page 32→



**COLD FINISHED BARS**  
provide superior finish,  
uniformity, machinability





## "J&L B-1113 leaded steel provides flawless finish, speeds machining of Singer sewing machine parts 35%"

"Flawless finish of 'Slant-O-Matic' hook assembly components machined from J&L B-1113 leaded steels, and carefully polished, prevents thread snags," according to officials of Singer Manufacturing Company.

With the "Slant-O-Matic" hook assembly moving at 3200 revolutions a minute, the slightest burr or tool mark on any part would snag the thread. Singer officials report the machined surfaces with J&L steel are "definitely easier to polish." They are now using leaded steel in over 100 components on the scores of industrial and household machines they manufacture.

"Use of cold finished leaded steel bars also speeds production 35% on our multiple spindle screw machines. And we get 25% longer tool life," Singer officials report.

Similar machining qualities and speed are possible in your operations with J&L controlled quality cold finished steel bars. A J&L steel specialist can recommend exactly the right steel for any job from J&L's complete cold finished line. Chances are he can help you get improved finishes, higher cutting speeds and longer tool life.

Call your local distributor, or write to Jones & Laughlin Steel Corporation, Dept. 543, 3 Gateway Center, Pittsburgh 30, Pennsylvania.



J&L's B-1113 leaded steel permits 35% higher machining speeds in this multiple spindle screw machine operation at Singer Manufacturing Co., Elizabethport, N. J.




Superior surface finish of these hook assembly components prevents thread snags on Singer's "Slant-O-Matic" machines. Parts are machined from J&L leaded steel bars.



**Jones & Laughlin Steel Corporation**


PITTSBURGH, PENNSYLVANIA



Find out what's new  
in corrugated boxes—

**Talk** to your  
H & D Packaging Engineer

**HINDE & DAUCH**  
Division of West Virginia Pulp and Paper Company  
Sandusky, Ohio  
15 Factories  
42 Sales Offices



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and  
**APPLICATIONS**  
of **INDUSTRIAL FELT**



\*made to S.A.E.  
and Federal  
Govt.  
Specifications

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FELT  
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WITH YOUR  
PRODUCTS**

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**CONTINENTAL  
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fills hundreds  
of jobs daily

Ask for booklet

**CONTINENTAL FELT COMPANY, INC.**  
22-26 WEST 15th STREET NEW YORK 11, N. Y.

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## Association News

### Chesney Elected 8th District VP



**J. Dukehart Chesney, 8th District  
vice president.**

Mr. J. Dukehart Chesney, Purchasing Agent of Huyck Felt Company Division, F. C. Huyck & Sons, Rensselaer, New York, was elected vice-president for the 8th District of the National Association of Purchasing Agents.

Mr. Chesney has been active in purchasing agents association affairs for a good many years and held the position of president of the Purchasing Agents Association of Eastern New York 1955-ern New York for two terms, 56, and National Director of East-1956-57 and 1957-58.

### Dayton Association's Honor Awards

The Purchasing Agents Association of Dayton, Ohio, at its closing meeting for 1957-58, honored members who had distinguished themselves in loyal service. To Edwin J. Thum, a recent retiree of The Specialty Paper Co. and a past president of the Association, a plaque was presented as a special award for meritorious service. Appreciative service awards were given to Walter Everhart, The Sterling Rubber Co., and Ralph Gaywood, The Horstman Printing Co. They are the Association's secretary and treasurer, respectively. Perfect attendance pins were presented to Tom Becker, The John A. Becker Co. and Roy Oler, Aetna Paper Co.

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Undisplayed (set solid) .....90¢ line

Displayed .....\$8.50 inch

FOR SALE—1 Jeffrey Mfg. Company Bag Stacker With Motor. Today's Replacement Cost \$4800. Our Selling Price \$375. Send For Photo. Schneider Printing Co., Palmyra, Penna.

### WE'RE LOOKING TO BUY!!!

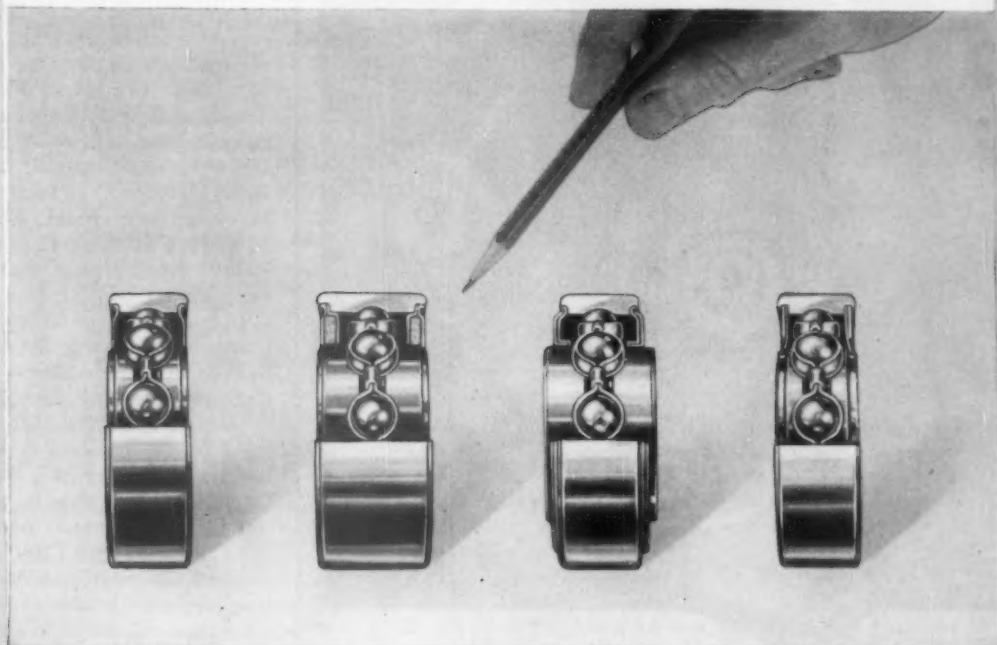
- **INVENTORIES** •
- OF DISCONTINUED OR OFF SEASON LINES
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For general use or for specific applications demanding the most exacting requirements, the Baltric line of motors more than fills the

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## **Association News**

### **PAANJ Elect Officers for 1958-59**

The slate of candidates, presented by the nominating committee, was elected unanimously at the May meeting of Purchasing Agents Association of North Jersey. The following will guide the association's destiny for the coming year: president, Phil Richmond; national director, Rube Atkins; 1st v.p., Howard Webster; 2nd v.p., Ted Kopacki; treasurer, Irene Gordon; secretary, Chas. Messner; exec. comm., Bill Coates (2 yrs.), Phil King (2 yrs.), John Babi, Abe Kraus (both 1 yr. remaining).

The second annual spring golf tournament of the PAANJ was held at the Canoe Brook Country Club on Thursday, May 22, a day of perfect weather. The greatest thrill of the day was experienced by Dick Meissner of U.S. Rubber Co. He made a hole in one from the 14th tee. A new member, A. W. Custer of the Ciba Pharmaceutical Co., won the Association trophy. Later in the evening, the Education Committee met with Hank Ziobro of Rutgers University. The conferees selected a subject for the University's next Purchasing Conference, namely, "Communication in Purchasing." Date for meeting was tentatively set at November 20th.

### **Economist Addresses Twin City PA Ass'n**

The May meeting of the Twin City Association, held at the Town & Country Club, was election night. The official slate voted on was: president: R. A. Bateman; first v.p., A. R. Boesel and T. M. Stirmlinger; second v.p., W. K. Freed and Wayne Hamlett; secretary-treasurer, E. O. Burchell; director (4 year term), F. R. Chambers and C. C. Forster. The guest speaker was Oscar F. Litterer, economist for the Federal Reserve Bank of Minneapolis. He gave a most interesting talk on current economics and credit developments in the nation as a whole, with special emphasis on conditions locally.

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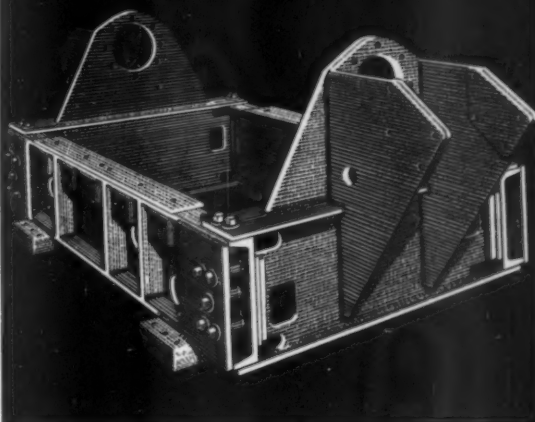
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AUGUST 4, 1958

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# Employment Service

## Buyer Machinery—Raw Materials

Expanding multi-plant Wisconsin Paper Manufacturer needs high I.Q. aggressive young man to handle procurement of raw materials or machinery and construction contracts. Engineering degree preferred. Should have outgoing personality and supervisory abilities. Opportunity for advancement plus the good life. Send resume of education and experience plus snapshot. Write: Box 501.

**Experience:** Eight years director of purchases and production with metal manufacturers. Presently with research firm. Materials experiences: all types; steel—stainless and carbon—tubing, copper, brass, aluminum. Handled large and small projects from single units through government contracts. Charge of all sub-contracting, estimating, quoting, etc. Exceptionally capable of administrating, organizing and co-ordinating.  
**Education:** Illinois Institute of Tech.  
**Will relocate.**  
**Write:** Box 151.

**Experience:** Cost accountant for 1½ years with a heavy-machine making firm. Three years as a buyer of all items for production and maintenance for same concern. Production items as follows: steel, valves, fittings, fasteners, motors, electrical and hydraulic equip.  
**Education:** B.B.A., accounting major.  
**Will relocate:** Preferably western N.Y. area.  
**Write:** Box 154.

**Experience:** Five years buying non-production items, plus shelf & catalog items. Three years supervisory and purchasing administrative experience. Mostly in the automotive industry. Have also held secretarial positions—can type and operate the usual office type machines.  
**Education:** College graduate.  
**Will relocate.**  
**Write:** Box 155.  
**END**

**Experience:** Purchasing agent, large aircraft company. Supervise over 20 buyers. Formerly, assistant director of purchases, auto parts company, approximately \$80 million volume of purchases. Specialist in sound administration. Introduced purchase analysis to auto parts co.; made savings of over \$5 million.  
**Education:** B.A., M.B.A.  
**Will relocate.**  
**Write:** Box 156

**Experience:** Three years full responsibility for procurement of all plant supplies, raw materials, production tooling and sub-contracting for finish grinding and fabrication of carbide parts. Especially qualified in specifications, requirements and procurement of raw materials, diamond grinding wheels (both natural and man-made), abrasives, graphite and refractories.  
**Education:** Certificate in Electrical Engineering  
**Write:** Box 157.

**Experience:** Two years expediting automotive parts; 1 year expediting aircraft parts; 2 years buying raw material, cutting tools, shipping materials, sleeve castings. One year production clerk; part-time machine-shop work while attending college.  
**Education:** B.S. in Business Administration. Purchasing Course.  
**Will relocate.**  
**Write:** Box 158.

**Experience:** Two years experience in industrial purchasing with a large corporation, as expeditor, purchase quantity analyst and an assistant to the buyer.  
**Education:** B.S.B.A in Industrial Management.  
**Will relocate.**  
**Write:** Box 159.

**Experience:** Eight years optical shop supervisor; 2 years production control; 2 years supervisor precision instrument assembly; 1 year coordinator between engineering and production; 3 years director of purchases.  
**Education:** College graduate  
**Will relocate to West Coast.**  
**Write:** Box 160.

**Listings in this department are offered without charge.** Both purchasing department personnel interested in changing jobs and employers in search of replacements or additions to their departments may take advantage of this service. When writing, specify whether you want the applicant's form or the employer's form. Address all correspondence to Employment Service Department, PURCHASING Magazine, 205 East 42nd Street, New York 17, New York.

**Experience:** One year stores clerk, 2 years senior accounting clerk, 5 years chief clerk, 3 years buyer, all in stores and purchasing for present Gas Utility employer. Chief clerk and buyer positions also involved acting department head and purchasing agent when necessary.  
**Education:** B.B.A. Industrial Management.  
**Will relocate.**  
**Write:** Box 161.

**Experience:** Have served in the capacity of purchasing agent for the past 5 years. In charge of a group of buyers, from 4 to 5, clerks, typists and field inspectors & expeditors. Personally supervise the issuing of inquiries, tabulation of bids, liaison with engineering and project personnel and placing of purchase orders with vendors. These operations cover the entire scope of construction contracts as well as the day to day purchase of office supplies, equipment and services.  
**Education:** College: School of Management. Evening courses in production planning and quality control.  
**Write:** Box 149.

**Experience:** Two years supervisory experience in purchasing section of large electrical manufacturer. Four years as raw material buyer handling purchase at mill and warehouse levels of steel, copper, brass, aluminum in all forms. Four years as buyer negotiating price and delivery for machine parts, stampings, power transmission equipment, rubber, plastic and fibre parts, and formed tube and sheet metal assemblies.  
**Education:** B.S., Business Administration. Two years Engineering college—Electrical Special Management training courses.  
**Will relocate.**  
**Write:** Box 163.

**Experience:** Thirteen years industrial purchasing and supervision of buyers, stenographers, foremen and 100 hourly employees. Responsible for the purchase, installation and maintenance of \$500,000 worth of molding equipment and steam boilers. Annual gross business was \$5,000,000.  
**Education:** Accounting and Business Administration.  
**Will relocate.**  
**Write:** Box 164.

**Experience:** Traffic manager—2½ yrs.; purchasing agent—3½ yrs. Familiar with and practice all phases of purchasing. Set up inventory control and equipment registry.  
**Education:** BS, Economics.  
**Will relocate.**  
**Write:** Box 181.

# ALLWAY TOOLS

uses fewer parts  
and cuts  
production costs  
with die castings

CASE HISTORIES FROM  
MT. VERNON FILES

"We set out to make the best looking—best performing—best priced line of woodscrapers on the market. Die casting helped us do it", reports Mr. Gringer, President, \*Allway Tools.

There's no doubt about it—Allway 4 Edge Wood Scrapers for fine and rough work, and Allway Finishing Scrapers for fine work are easily one of the best designed and easiest performing scrapers available. And a vital factor in their design and manufacture has been the full use of all the inherent advantages of zinc die casting.

Each blade mount is a light-weight, rigid, ribbed casting of great strength. Allway Scrapers have to withstand lots of hard pressure without bending or cracking.

All design requirements, mounting bosses, correct curvature for effective blade angle, clean edges and finish, high production rate, were economically achieved. In addition to their quality design and construction, Allway Scrapers have to be competitively priced.

Allway takes the zinc die castings as they come in — drills and taps a hole or swages a rivet stud as required in each model — firmly stakes a steel handle

to it — adds blade and vinyl grip, and the scraper is ready for market. Result — simplified, fast, low-cost production and a superior product.

When you are confronted with problems of lower production costs or product improvement, consider die casting and bring your problem to us. Our complete four-fold service will help provide the answers. Contact your nearest Mt. Vernon sales representative for quick action.

\*Allway Manufacturing Co., N. Y. C.



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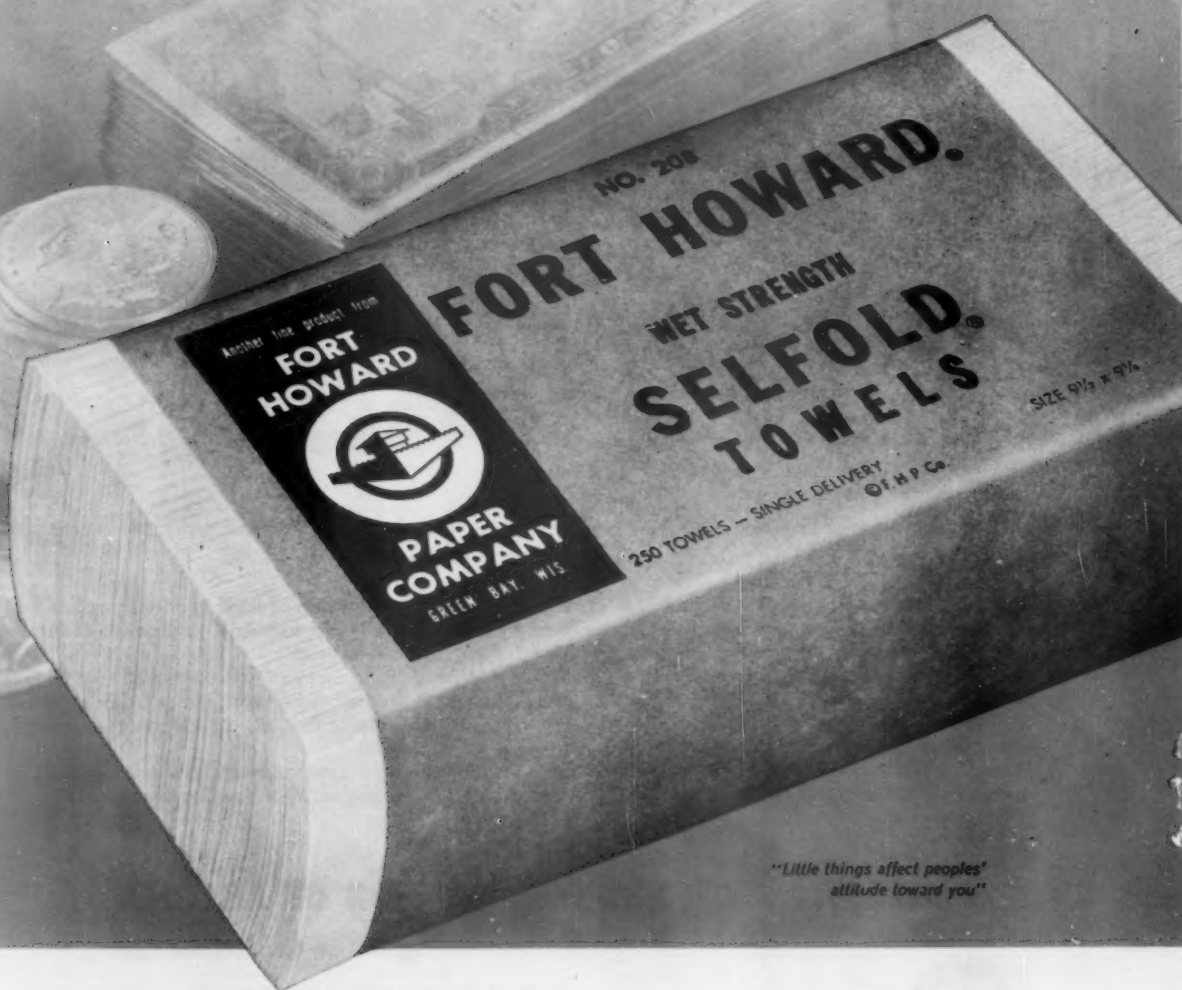
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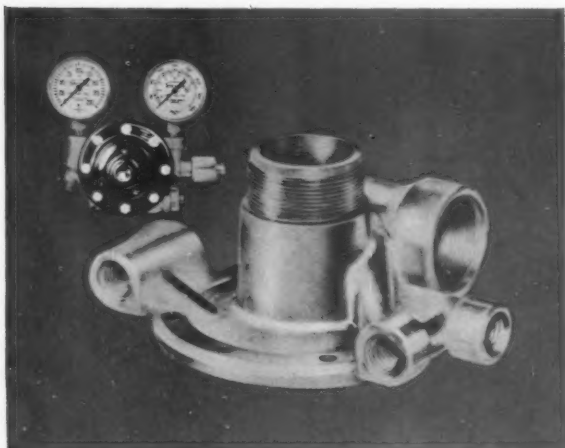
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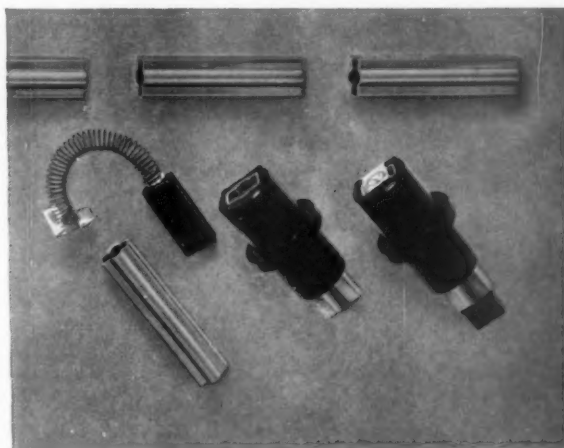


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**DIE-PRESSED FORGINGS**, made of twice-wrought metal, offer superior uniformity, denseness, accuracy. *Savings:* replace more costly built-up assemblies—often are less in first cost than sand castings—require minimum surface machining to size—simplify secondary operations—lower tool cost—lower finishing cost.

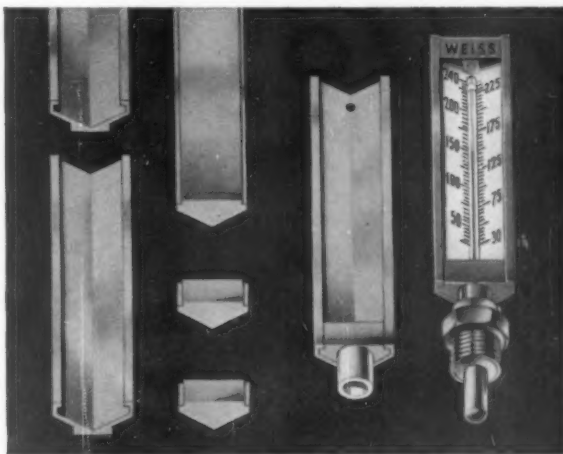


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EXTRUSIONS • FABRICATED METAL GOODS**

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